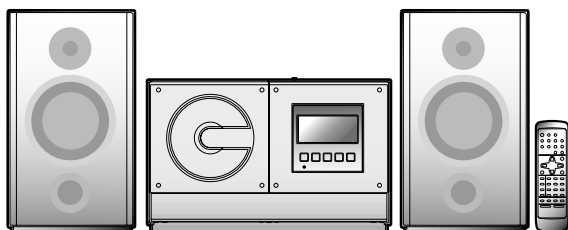


SHARP SERVICE MANUAL

No. S3117SDCX1WBL



SAVING ENERGY
STAND-BY POWER CONSUMPTION **0.8w**

COMPACT
disc
DIGITAL AUDIO

MDLP

Mini
Disc

1-BIT DIGITAL AUDIO SYSTEM

SD-CX1W(BL) MODEL SD-CX1W(GR)

SD-CX1W 1-Bit Digital Audio System consisting of SD-CX1W (main unit) and CP-CX1W (speaker system).

• In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified should be used.

CONTENTS

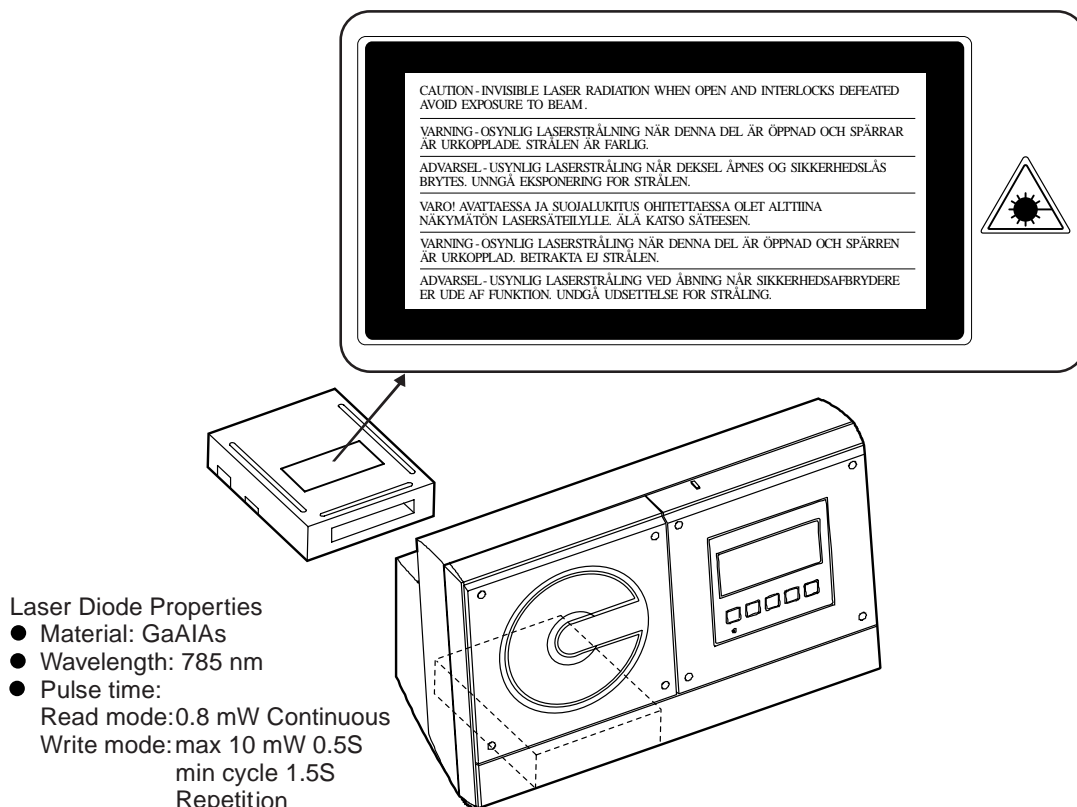
	Page
SAFETY PRECAUTION OF MD SECTION FOR SERVICE MANUAL	2
SAFETY PRECAUTION OF CD SECTION FOR SERVICE MANUAL	3
VOLTAGE SELECTION	3
AC POWER SUPPLY CORD AND AC PLUG ADAPTOR	3
SPECIFICATIONS	4
NAMES OF PARTS	5
OPERATION MANUAL	7
DISASSEMBLY	10
REMOVING AND REINSTALLING THE MAIN PARTS	13
DESCRIPTION OF CIRCUIT FOR 1-BIT AMP. UNIT	15
TO CHECK AND CANCEL PROTECT CIRCUIT DETECTION LINE	16
TEST MODE	17
ADJUSTMENT	22
ERROR MESSAGE LIST	31
EEPROM WRITING PROCEDURE	32
NOTES ON SCHEMATIC DIAGRAM	35
TYPES OF TRANSISTOR AND LED	35
BLOCK DIAGRAM	36
SCHEMATIC DIAGRAM	40
WIRING SIDE OF P.W.BOARD	54
WAVEFORMS OF 1 BIT AMP. CIRCUIT	67
WAVEFORMS OF MD CIRCUIT	68
WAVEFORMS OF CD CIRCUIT	70
TROUBLESHOOTING	72
FUNCTION TABLE OF IC	81
FL DISPLAY	98
PARTS GUIDE/EXPLODED VIEW	

SAFETY PRECAUTION OF MD SECTION FOR SERVICE MANUAL

WARNINGS

The AEL (Accessible Emission Level) of the laser power output is less than class 1 but the laser component is capable of emitting radiation exceeding the limit for Class 1. Therefore it is important that the following precautions are observed during servicing to protect your eyes against exposure to the laser beam.

- 1) When the unit case cover is removed and LOADING switch (SW1932) is turned on and then PLAY switch (SW1934 mechanism PWB) is turned on in a few second.
The laser will light for several second to detect a disk.
- 2) The laser power output of the pickup unit and replacement service parts are all factory pre-set before shipment.
Do not attempt to re-adjust the laser pickup unit during replacement or servicing.
- 3) Under no circumstances stare into the pickup lens at any time.
- 4) If laser optical unit becomes faulty, replace the complete laser optical unit.
- 5) CAUTION-Use of controls or adjustments, or performance of procedures other than those specified herein may result in hazardous radiation exposure.



Precaution to be taken when replacing and servicing the laser pickup.

The following precautions must be observed during servicing to protect your eyes against exposure to the laser.

Warning of possible eye damage when repairing:

If the AC power plug is connected when the inner cover of the unit is removed, the laser will light up during focus access (about 1 second) (Fig. 2-1).

During this operation, the laser will leak from the opening between the magnetic head and cartridge holder (Fig. 2-2).

In order to protect your eyes, you must not look at the laser during repair.

Before repairing, be sure to disconnect the AC power plug.

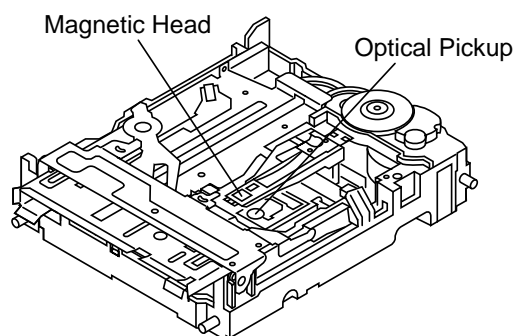


Figure 2-1

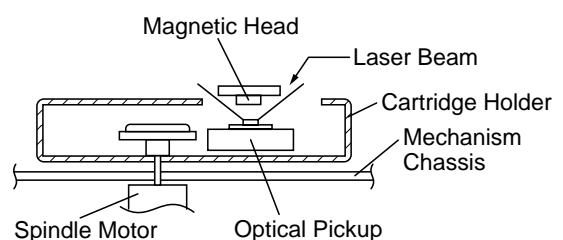


Figure 2-2

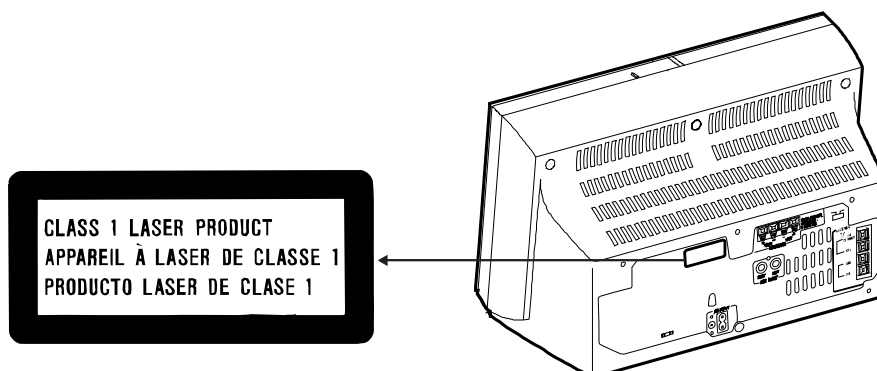
SAFETY PRECAUTION OF CD SECTION FOR SERVICE MANUAL

WARNINGS

Precaution to be taken when replacing and servicing the Laser Pickup.

The AEL (Accessible Emission Level) of Laser Power Output for this model is specified to be lower than Class 1 Requirements. However, the following precautions must be observed during servicing to protect your eyes against exposure to the Laser beam.

- (1) When the cabinet has been removed, the power is turned on without a compact disc, and the Pickup is on a position outer than the lead-in position, the Laser will light for several seconds to detect a disc. Do not look into the Pickup Lens.
- (2) The Laser Power Output of the Pickup inside the unit and replacement service parts have already been adjusted prior to shipping.
- (3) No adjustment to the Laser Power should be attempted when replacing or servicing the Pickup.
- (4) Under no circumstances look directly into the Pickup Lens at any time.
- (5) CAUTION - Use of controls or adjustments, or performance of procedures other than those specified herein may result in hazardous radiation exposure.

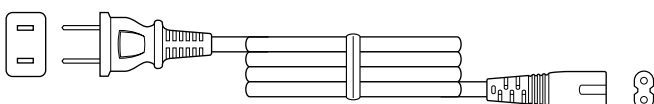


VOLTAGE SELECTION

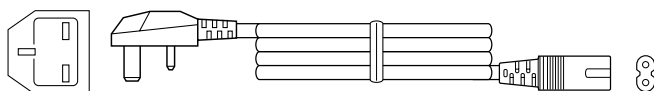
Before operating the unit on mains, check the preset voltage. If the voltage is different from your local voltage, adjust the voltage as follows. Turn the selector with a screwdriver until the appropriate voltage number appears in the window (110 V, 127 V, 220 V or 230 V - 240 V AC).

AC POWER SUPPLY CORD AND AC PLUG ADAPTOR

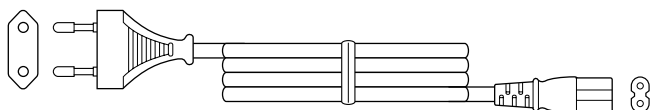
QACCA0004AW00/QACCB0006AW00



QACCB0008AW00



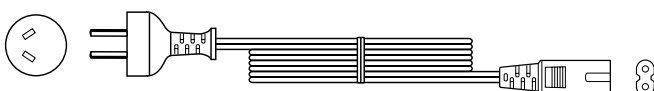
QACCE0007AW00



QPLGA0004AWZZ



QACCL0002AW00



SD-CX1W

FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

SD-CX1W

SPECIFICATIONS

■ General

Power source	AC 110/127/220/230-240 V, 50/60 Hz
Power consumption	42 W
Dimensions	Width: 330 mm (13") Height: 208 mm (8-3/16") Depth: 187 mm (7-3/8")
Weight	5.3 kg (11.7 lbs.)

■ Amplifier

Amplification system	64fs 1-bit switching (Remarks: fs = 44.1 kHz)
Rated output power	RMS: 40 W (20 W + 20 W) (10% T.H.D.)
A/D noise shaping	7th-order $\Delta\Sigma$ (delta - sigma) modulation
Output terminals	Speakers: 6 ohms Headphones: 16 - 50 ohms (recommended: 32 ohms)
Input terminals	Auxiliary: 500 mV/47 kohms

■ CD player

Type	1-disc vertical compact disc player
Signal readout	Non-contact, 3-beam semiconductor laser pickup
D/A converter	1-bit D/A converter
Frequency response	20 - 20,000 Hz
Dynamic range	90 db (1 kHz)

■ MiniDisc

Type	MiniDisc Recorder
Signal readout	Non-contact, 3-beam semiconductor laser pickup
Rotation speed	400 - 900 rpm CLV, Approx.
Error correction	ACIRC (Advanced Cross Interleave Reed-Solomon Code)
Quantization	20-bit linear (A/D converter)
Coding	ATRAC (Adaptive TRansform Acoustic Coding), ATRAC3
Sampling frequency	44.1 kHz
Recording method	Magnetic modulation overwrite method
Frequency response	20 - 20,000 Hz
D/A converter	1-bit D/A converter
Wow and flutter	Unmeasurable (less than 0.001% W. peak)
Signal/noise ratio	95 dB (1 kHz)
Dynamic range	90 dB (1 kHz)
Audio channel	Stereo: 2 channels (SP, LP2, LP4) Monaural: 1 channel (MONO)

■ Tuner

Frequency range	FM: 88 - 108 MHz AM: 531 - 1,602 kHz
-----------------	---

CP-CX1W

Type	2-way type speaker system 2 cm (13/16") Tweeter 12 cm (4-3/4") Woofer
Maximum input power	40 W
Rated input power	20 W
Impedance	6 ohms
Dimensions	Width: 170 mm (6-3/4") Height: 300 mm (11-13/16") Depth: 186 mm (7-3/8")
Weight	2.0 kg (4.4 lbs.)/each

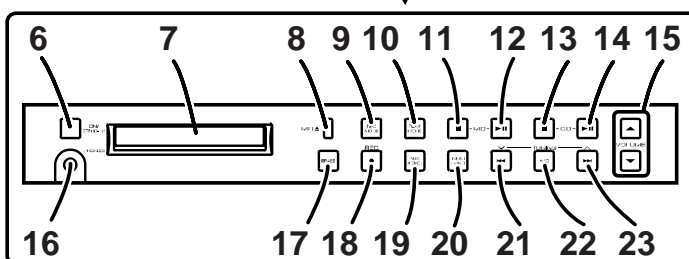
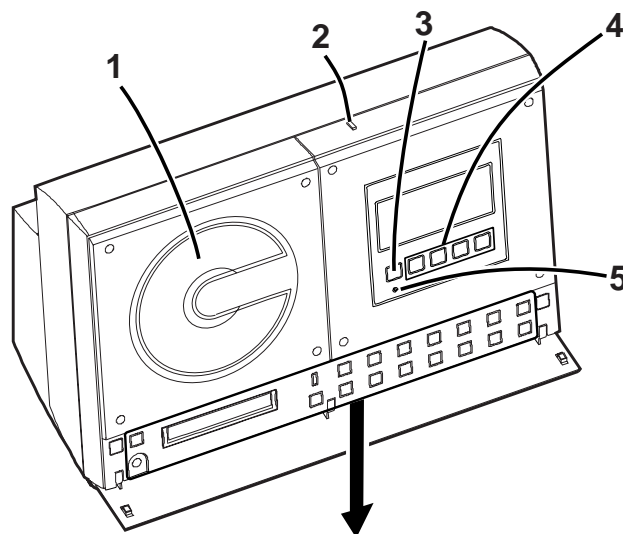
Specifications for this model are subject to change without prior notice.

NAMES OF PARTS

SD-CX1W

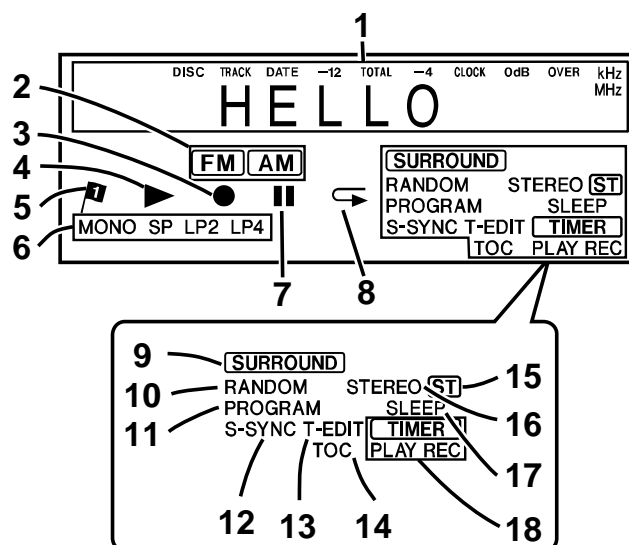
■ Front panel

1. CD Cover
2. CD Cover Open/Close Button
3. Remote Sensor
4. Function Indicator
5. Timer Indicator
6. On/Stand-by Button
7. MD Compartment
8. MD Eject Button
9. MD Record Mode Button
10. CD/MD Play Mode Select Button
11. MD Stop Button
12. MD Play/Pause Button
13. CD Stop Button
14. CD Play/Pause Button
15. Volume Up or Down Buttons
16. Headphone Socket
17. Erase Button
18. MD Record Button
19. Auxiliary/Demo Button
20. Tuner (Band) Button
21. CD/MD Fast Reverse, Tuning Down Button
22. MD +10 Track Up Button
23. CD/MD Fast Forward, Tuning Up Button



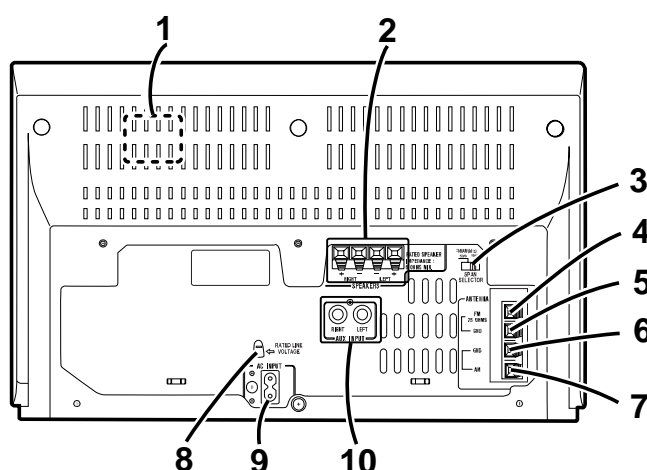
■ Multi-function LCD display

1. Level Meter/Character Information/Frequency Indicator
2. Band Selector Indicator
3. Record Indicator
4. CD/MD Play Indicator
5. Top Position Indicator
6. Record Mode Indicator
7. MD Record Pause Indicator
8. CD/MD Repeat Indicator
9. Surround Indicator
10. Random Play Indicator
11. Programme Play Indicator
12. Sound Synchronised Recording Indicator
13. Track Edit Indicator
14. TOC Indicator
15. FM Stereo Indicator
16. FM Stereo Mode Indicator
17. Sleep Indicator
18. Timer Play/Recording Indicator



■ Rear panel

1. Cooling Fan
2. Speaker Terminals
3. Span Selector Switch
4. FM 75 Ohms Aerial Terminal
5. FM Aerial Earth Terminal
6. AM Aerial Earth Terminal
7. AM Loop Aerial Terminal
8. Voltage Selector
9. AC Input Socket
10. Auxiliary Input Sockets

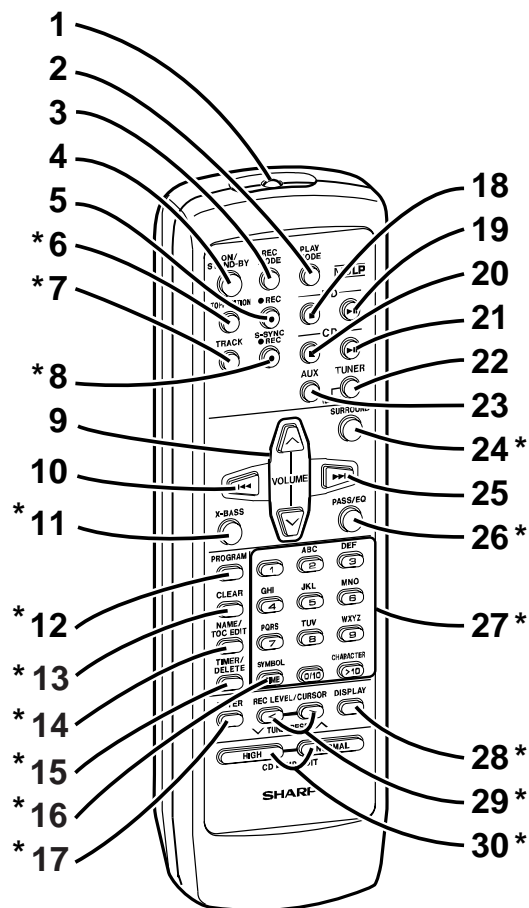


SD-CX1W

■ Remote control

1. Remote Control Transmitter
2. CD/MD Play Mode Select Button
3. MD Record Mode Button
4. On/Stand-by Button
5. MD Record Button
6. Top Position Button
7. Track Edit Button
8. Sound Synchronise Record Button
9. Volume Up or Down Button
10. CD/MD Fast Reverse, Tuning Down Button
11. Extra Bass Button
12. CD/MD Programme Button
13. Clear Button
14. Name/TOC-Edit Button
15. Timer/Delete Button
16. Time Button
17. Enter Button
18. MD Stop Button
19. MD Play/Pause Button
20. CD Stop Button
21. CD Play/Pause Button
22. Tuner (Band) Button
23. Auxiliary Button
24. Surround Button
25. CD/MD Fast Forward, Tuning Up Button
26. Preset Equalizer Button
27. Character Input/CD, MD, Tuner Direct Buttons
28. Display Button
29. Recording Level/Cursor/Tuner Preset Buttons
30. CD/MD Edit Buttons

Buttons with "*" mark in the illustration can be operated on the remote control only.
Other buttons can be operated both on the main unit and the remote control.



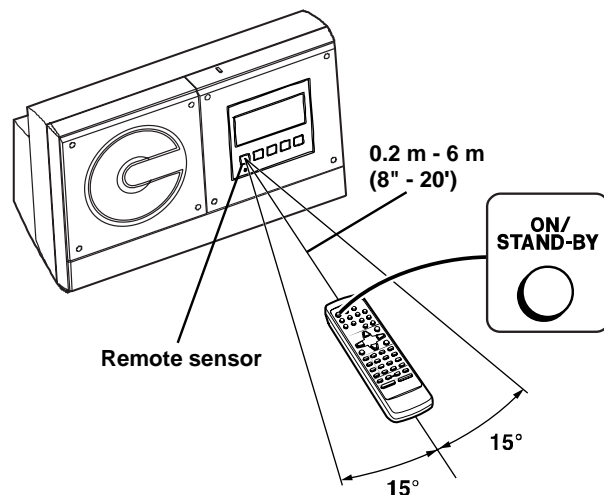
■ Test of the remote control

Check the remote control after checking all connections have been made correctly.

Face the remote control directly to the remote sensor on the unit.

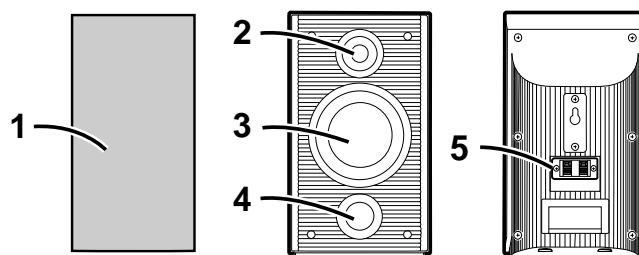
The remote control can be used within the range shown below:

Press the ON/STAND-BY button. Does the power turn on? Now, you can enjoy the music.



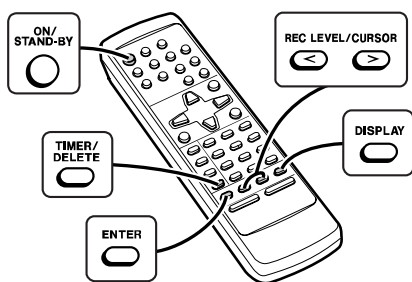
CP-CX1W

1. Speaker Grille
2. Tweeter
3. Woofer
4. Bass Reflex Duct
5. Speaker Terminals



OPERATION MANUAL

Setting the Clock



In this example, the clock is set for 9:30 15. 02 '01.

1 Press the ON/STAND-BY button to turn the power on.
2 Press the TIMER/DELETE button.
3 Within 10 seconds, press the REC LEVEL/CURSOR < or > button to select the "TIME ADJUST".
TIME ADJUST
4 Within 10 seconds, press the ENTER button.
5 Press the REC LEVEL/CURSOR < or > button to adjust the year, and then press the ENTER button.
01 . 01 : 01
6 Press the REC LEVEL/CURSOR < or > button to adjust the month, and then press the ENTER button.
01 . 02 : 01

7 Press the REC LEVEL/CURSOR < or > button to adjust the date, and then press the ENTER button.

15 . 02 : 01

8 Press the REC LEVEL/CURSOR < or > button to adjust the hour, and then press the ENTER button.

9 : 00

9 Press the REC LEVEL/CURSOR < or > button to adjust the minutes, and then press the ENTER button.

9 : 30

- The hour will not advance even if minutes advance from "59" to "00".
- The clock starts from "0" second. (Seconds are not displayed.) The time display will disappear after a few seconds.

To confirm the time display:

[When the unit is in the stand-by mode]

Press the DISPLAY button on the remote control. The time display will appear for about 5 seconds.

[When the power is on]

Press the TIMER/DELETE button. Within 10 seconds, press the REC LEVEL/CURSOR < or > button. The time display will appear for about 10 seconds.

Note:

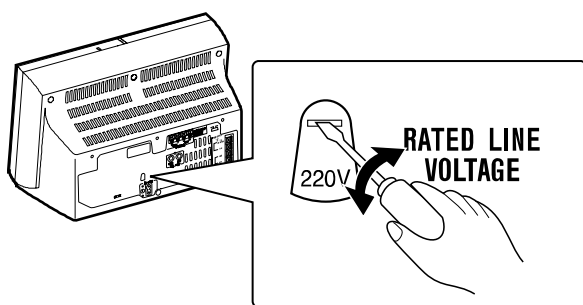
The clock setting will be cleared when the unit is unplugged or the power failure occurs.

To reset the clock:

Perform "Setting the Clock" from the beginning.

Setting the AC voltage selector

Check the setting of the AC voltage selector located on the rear panel before plugging the unit into an AC socket. If necessary, adjust the selector to correspond to the AC power voltage used in your area.



Turn the selector with a screwdriver until the appropriate voltage number appears in the window (110 V, 127 V, 220 V or 230 V - 240 V AC).

If trouble occurs (reset)

When this product is subjected to strong external interference (mechanical shock, excessive static electricity, abnormal supply voltage due to lightning, etc.) or if it is operated incorrectly, it may malfunction.

If such a problem occurs, do the following:

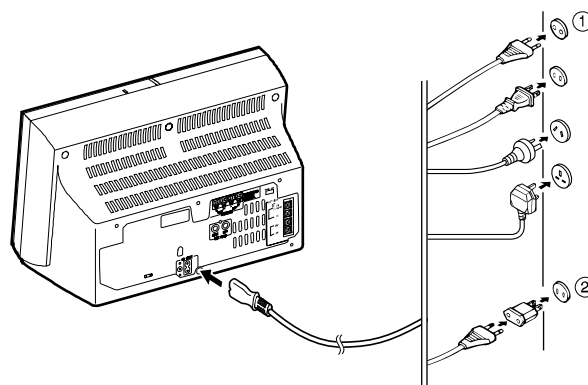
Unplug the power lead from the AC socket. Then, plug it in again and retry the operation.

Caution:

This operation will erase all data stored in memory including clock, timer settings, tuner preset, and CD or MiniDisc programme.

Connecting the AC power lead

After making all connections, plug the unit. If you plug the unit first, the unit will enter the demonstration mode.



Notes:

- Plug the AC power lead into an AC socket, after any connections.
- Unplug the AC power lead from the AC socket if the unit will not be in use for a prolonged period of time.

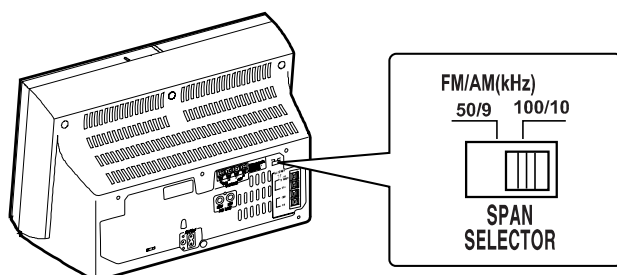
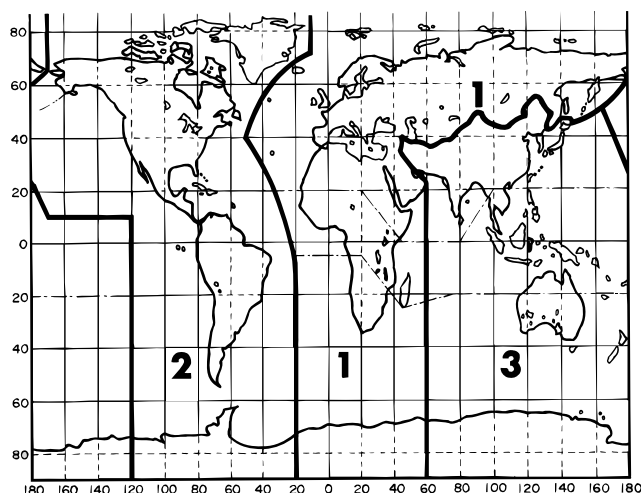
AC Plug Adaptor

In areas (or countries) where an AC socket as shown in illustration ② is used, connect the unit using the AC plug adaptor supplied with the unit, as illustrated. The AC plug adaptor is not included in areas where the AC wall socket and AC power plug can be directly connected (see illustration ①).

Note for users in Australia and New Zealand:

An AC plug adaptor is not supplied if the lead has an Australian Standard plug.

SD-CX1W



■ Setting the FM/AM span selector

The International Telecommunication Union (ITU) has established that member countries should maintain either a 100 kHz or a 50 kHz interval between broadcasting frequencies of FM stations and 10 kHz or 9 kHz for AM station. The illustration shows the 50/9 kHz zones (regions 1 and 3), and the 100/10 kHz zone (region 2). Before using the unit, set the SPAN SELECTOR switch (on the rear panel) to the interval (span) of your area.

To change the tuning zone:

- 1 Unplug the AC power lead from the AC socket.
- 2 Set the SPAN SELECTOR switch (on the rear panel) as follows.
 - For 50 kHz FM interval (9 kHz in AM) → 50/9
 - For 100 kHz FM interval (10 kHz in AM) → 100/10
- 3 Plug the AC power lead to the AC socket.

Caution:

This operation will erase all data stored in memory including clock, timer settings, tuner preset, and CD or MiniDisc programme.

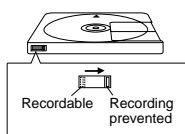
What is a MiniDisc ?

The disc is stored in a cartridge. You can handle it easily without worrying about dust, fingerprints, etc. However, dust entering the opening of the cartridge, dirt on the cartridge, warping, etc. may cause malfunctions. Please note the following.

■ To prevent recorded MiniDiscs from being erased accidentally

Slide the accidental erase prevention tab, located on the side of the MiniDisc, in the direction indicated by the arrow.

- The MiniDisc is then be protected against accidental erasure.



To add a recording to such a MiniDisc, slide the accidental erase prevention tab back to its original position.

■ Helpful tip when attaching a label

When attaching a label to a MiniDisc cartridge, be sure to note the following. If the label is not attached properly, the MiniDisc may jam inside the unit and it may not be possible to remove it.

- If the label peels off or partially lifts away, replace it with a new one.
- Do not put a new label on top of an existing one.
- Attach the label only in the specified location.



■ Types of discs

There are two types of discs: playback-only and recordable types.

● Playback-only MiniDisc:

This type of MiniDisc is used for commercially available prerecorded music. This is the same kind of optical disc as CDs. Playback is performed using an optical pickup. (Recording and editing are not possible.)



A Shutter will be used on only one side (back).

● Recordable MiniDisc:

This is a "raw disc" on which recording can be performed. A magneto optical disc is used. Recordings are made using a laser and magnetic field. Repeated recording is possible.




Shutters will be used on both sides.


MiniDisc System Limitations

Even if the maximum recording time of a MiniDisc has not been reached, "TOC FULL" may be displayed.	In the MD system, the delimiter of the recording area on a MiniDisc is programmed in a TOC. If partial erasing, recording and editing are repeated several times, TOC information will fill up, even though the number of tracks has not reached the limit (255 tracks), and further recording will be impossible. (If you use the all erase function, this MiniDisc can be used from the beginning.)
Even if the maximum recording time of a MiniDisc has not been reached, "DISC FULL" may be displayed.	If there is any flaw on the MiniDisc, that part is automatically excluded from the space available for recording. Therefore, the recording time becomes shorter.
Even if several short tracks are erased, the remaining recording time may not show an increase.	When the remaining recording time of a disc is displayed, short tracks less than 12 seconds long may not be included in the total.
Two tracks may not be combined in editing.	For MiniDiscs on which repeated recording and editing operations were performed, the COMBINE function may not work. A track recorded from a CD (digital recording) and a track recorded from a radio or other equipment (analogue recording) cannot be combined.
The total of the recorded time and time remaining on a disc may not add up to the maximum possible recording time.	A cluster (about 2 seconds) is normally the minimum unit of recording. So, even if a track is less than 2 seconds long, it will use about 2 seconds of space on the disc. Therefore, the time actually available for recording may be less than the remaining time displayed. If there are scratches on discs, those sections will be automatically avoided (no recording will be placed in those sections). Therefore, the recording time will be reduced.
If recorded tracks are fast reversed or fast forwarded, the sound may skip.	A MiniDisc which has been recorded or edited repeatedly may skip during fast reverse or fast forward.

Error Messages

When an error message is displayed, proceed as follows:

Error messages	Meaning	Remedy
BLANK MD	● Nothing is recorded. (Neither music nor disc name is recorded.)	● Replace it with another disc.
Can't COPY	● You tried to record from a copy prohibited CD.	● Replace the CD.
Can't EDIT	● A track cannot be edited.	● Change the stop position of the track and then try editing it.
Can't READ* (*: Number or symbol)	● The disc is damaged. ● TOC information cannot be read. ● MiniDisc not specified.	● Replace it with another disc. ● Erase the disc and try recording again.
Can't REC	● Recording cannot be performed correctly due to vibration or shock in the unit.	● Re-record or replace the MiniDisc.
Can't T REC	● Timer recording is impossible or there is no available space on the MD. ● The disc is out of recording space.	● Replace it with another recordable disc.
Can't WRITE	● The TOC information could not be created properly due to a mechanical shock or to scratches on the disc.	● Set this unit to the stand-by mode and try to write the TOC again. (Remove any source of shock or vibration whilst writing.)
CD NO DISC	● A CD has not been loaded. ● The CD data cannot be read.	● Load a CD. ● Reload the CD.
DISC FULL	● The disc is out of recording space.	● Replace the disc with another recordable disc.
EDIT OVER	● You chose 21 or more tracks for track editing.	● Decrease the number of tracks.
Er - MD ** (**): Number or symbol)	● A MiniDisc is not working properly.	● Press the MD  button. ● Set this unit to the stand-by mode and turn the power on again.

Error messages	Meaning	Remedy
MD NO DISC	● A MiniDisc has not been loaded. ● The MiniDisc data cannot be read.	● Load a MiniDisc. ● Reload the MiniDisc.
NAME FULL	● The number of characters for the disc name or track name exceeds 40.	● Shorten the disc or track name.
NOT AUDIO	● The data recorded on this disc is not audio data.	● Replace the disc.
PLAYBACK MD	● You tried to record on a playback-only disc.	● Replace it with another recordable disc.
POWER ?	● A MiniDisc is not working properly.	● Set this unit to the stand-by mode and turn the power on again.
PROTECTED	● The disc is write protected.	● Move the write protection tab back to its original position.
TEMP OVER	● The temperature is too high.	● Set this unit to the stand-by mode and wait for a whilst.
TOC FORM ** (**): Number or symbol)	● TOC information recorded on the MD does not match the MiniDisc specifications or it cannot be read.	● Replace it with another disc. ● Erase the disc and try recording again.
TOC FULL	● There is no space left for recording track numbers.	● Replace it with another recordable disc.
TOC FULL 1	● There is no space left for recording character information.	● Replace it with another recordable disc. ● Erase the needless characters.
? MD DISC	● The data contains an error. ● MiniDisc not specified.	● Press the MD  button. ● Replace it with another disc

Troubleshooting Chart

Many potential "problems" can be resolved by the owner without calling a service technician.

General

Symptom	Possible cause
● "TIME ADJUST" appears when the clock time is checked.	● Did a power failure occur? Reset the clock.
● When a button is pressed, the unit does not respond.	● Set this unit to the power stand-by mode and then turn it back on.
● No sound is heard.	● Is the volume level set to "0"? ● Are the headphones connected? ● Are the speaker wires disconnected?
● The picture on the TV screen is distorted.	● When a radio or TV which uses an indoor aerial is placed near the unit, the picture on the TV screen may be distorted or the radio may not function properly. ● It is recommended that you use an external aerial.

CD player

Symptom	Possible cause
● Even though a disc has been loaded, "CD NO DISC" or "Can't READ" is displayed.	● The disc is very dirty. ● Is the unit located near excessive vibrations? ● Has condensation formed inside the unit?
● Playback does not start.	● The disc is loaded upside down.
● Playback stops in the middle or is not performed properly.	● The disc does not satisfy the standards. ● The disc is distorted or scratched.
● Playback sounds are skipped, or stopped in the middle of a track.	● Is the unit located near excessive vibrations? ● The disc is very dirty. ● Has condensation formed inside the unit?

MiniDisc

Symptom	Possible cause
● A recording cannot be made.	● Is the MiniDisc protected against accidental erasure? ● Did you try to make recording on a playback-only MiniDisc? ● Can you see the "DISC FULL" or "TOC FULL" message in the display?
● Even though a disc has been loaded, "MD NO DISC" or "Can't READ" is displayed.	● The disc is very dirty. ● Is the unit located near excessive vibrations?
● Playback sounds are skipped.	● Has condensation formed inside the unit?

Tuner

Symptom	Possible cause
● Radio makes unusual noise consecutively.	● The stereo system is placed near the TV or computer. ● FM/AM loop aerial is not placed properly. Move the AC power lead away from the aerial if located near.
● The preset channel cannot be recalled.	● Did a power failure occur? ● Preset the channel again.

Remote control

Symptom	Possible cause
● The remote control does not operate.	● Is the AC power lead of the stereo system plugged in? ● The battery polarity is not correct. ● The batteries are dead. ● Incorrect distance or angle. ● Does the remote control sensor receive strong light?

DISASSEMBLY

Caution on Disassembly

Follow the below-mentioned notes when disassembling the unit and reassembling it, to keep it safe and ensure excellent performance:

1. Take compact disc and mini disc out of the unit.
2. Be sure to remove the power supply plug from the wall outlet before starting to disassemble the unit.
3. Take off nylon bands or wire holders where they need to be removed when disassembling the unit. After servicing the unit, be sure to rearrange the leads where they were before disassembling.
4. Take sufficient care on static electricity of integrated circuits and other circuits when servicing.

SD-CX1W			
STEP	REMOVAL	PROCEDURE	FIGURE
1	Rear Cabinet	1. Screw (A1) x3 2. Screw (A2) x8	10-1
2	Front Panel	1. Flat Cable (B1) x2 2. Screw (B2) x2 3. Screw (B3) x5 4. Socket (B4) x3	10-2
3	Rear Panel	1. Screw (C1) x3 2. Screw (C2) x2 3. Screw (C3) x3	10-2
4	1 Bit Amp. Unit	1. Screw (D1) x1 2. Screw (D2) x2 3. Socket (D3) x5	10-3
5	Power PWB	1. Screw (E1) x1 2. Socket (E2) x2 3. Flat Cable (E3) x1	11-1
6	Tuner PWB	1. Screw (F1) x1 2. Socket (F2) x1	11-1
7	Main PWB	1. Screw (G1) x3 2. Flat Cable (G2) x1	11-2
8	MD Unit	1. Screw (H1) x4	11-2
9	CD PWB (Note)	1. Flat Cable (J1) x1 2. Socket (J2) x5 3. Screw (J3) x3	11-3
10	Switch PWB	1. Screw (K1) x1	11-3
11	CD Mechanism	1. Screw (L1) x2 2. Screw (L2) x2	11-3
12	Display PWB/ CD Eject PWB/ Headphones PWB	1. Screw (M1) x11 2. Socket (M2) x1 3. Hook (M3) x2	11-4
13	LED PWB	1. Solder Joint (N1) x4 2. Hook (N2) x1	11-4
14	1 Bit Amp. PWB	1. Screw (P1) x2 2. Fan Motor (P2) x1 3. Screw (P3) x2 4. Fan Bracket (P4) x1 5. Screw (P5) x2 6. Amp. Bracket (P6) x1 7. Screw (P7) x4 8. Amp. Heat Sink ... (P8) x1 9. Screw (P9) x4 10. Washer (P10) x2 11. Screw (P11) x4 12. Shield Case (P12) x1 13. Screw (P13) x4 14. Shield Case (P14) x1	11-5 11-6

Note:

After removing the connector for the optical pickup from the connector, wrap the conductive aluminium foil around the front end of connector remove to protect the optical pickup from electrostatic damage.

SD-CX1W

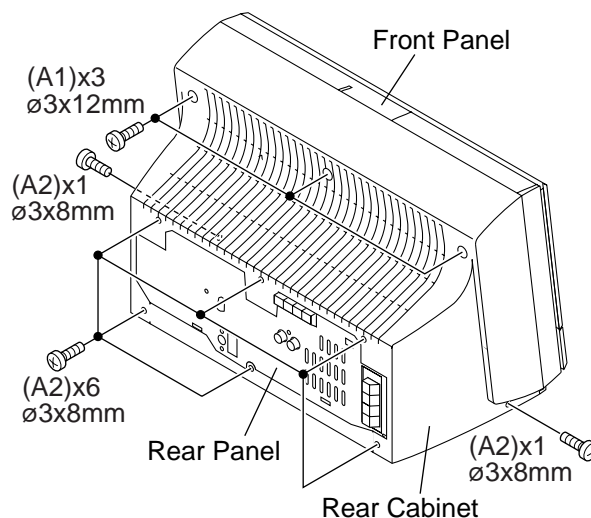


Figure 10-1

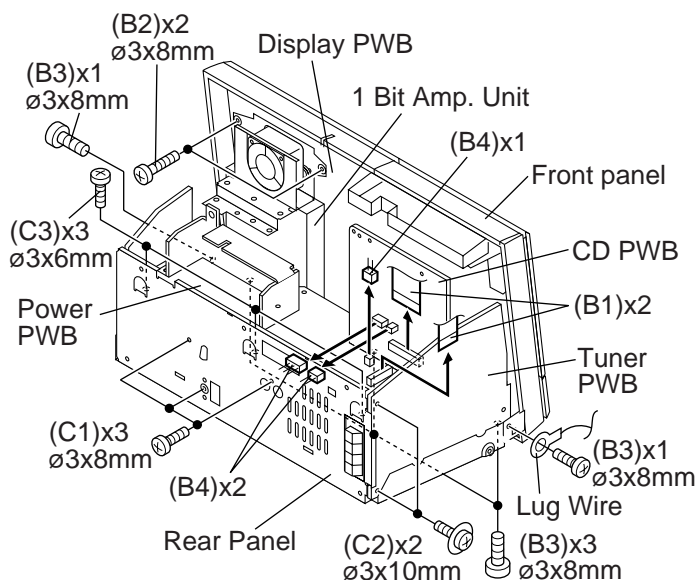


Figure 10-2

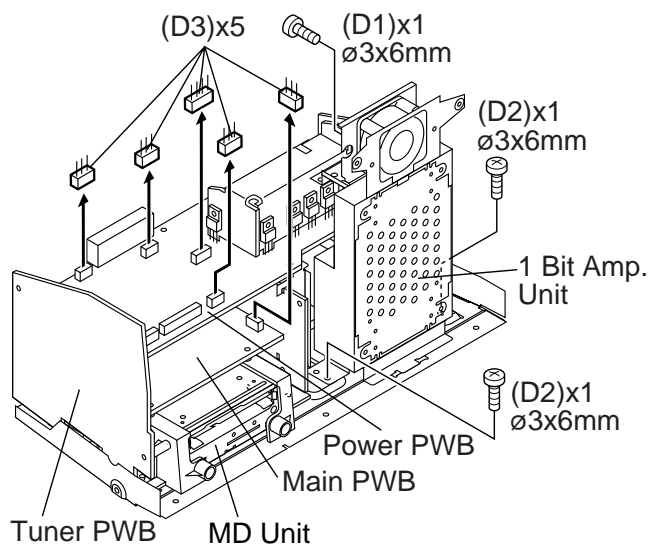


Figure 10-3

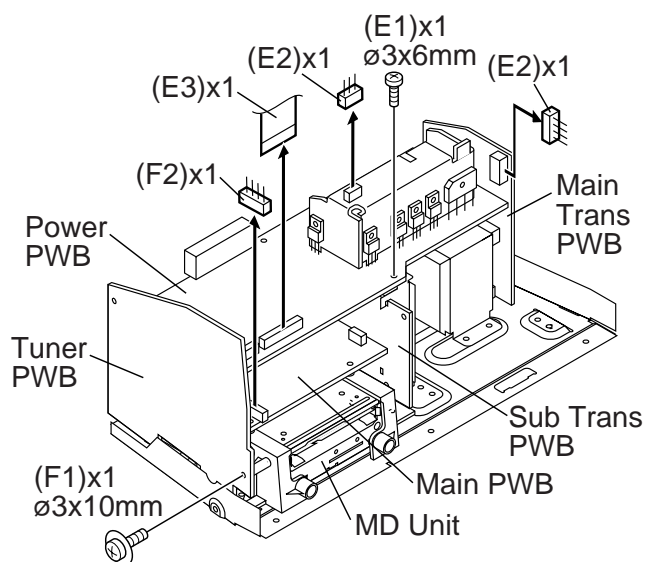


Figure 11-1

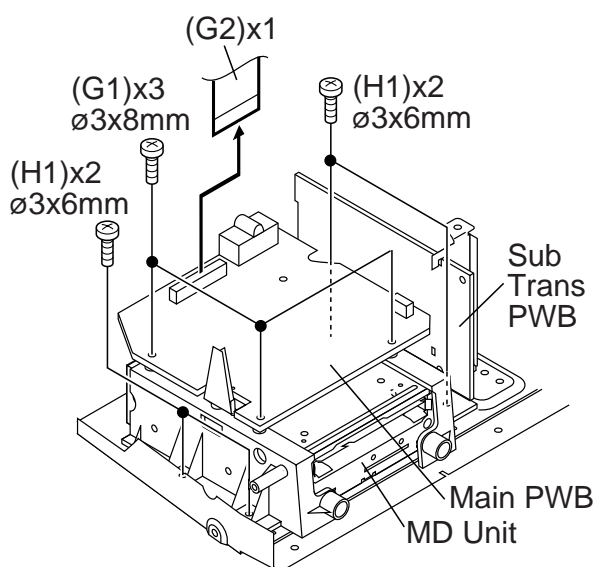


Figure 11-2

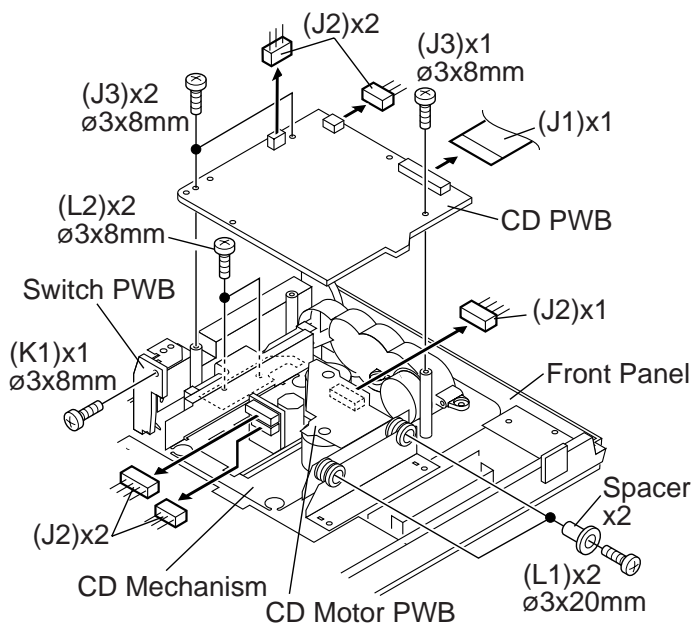


Figure 11-3

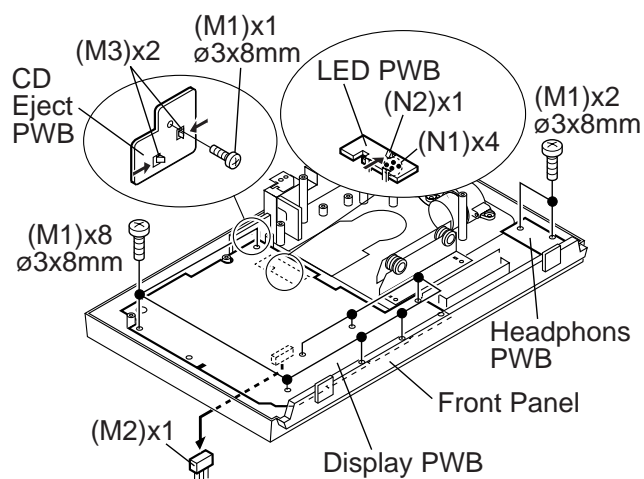


Figure 11-4

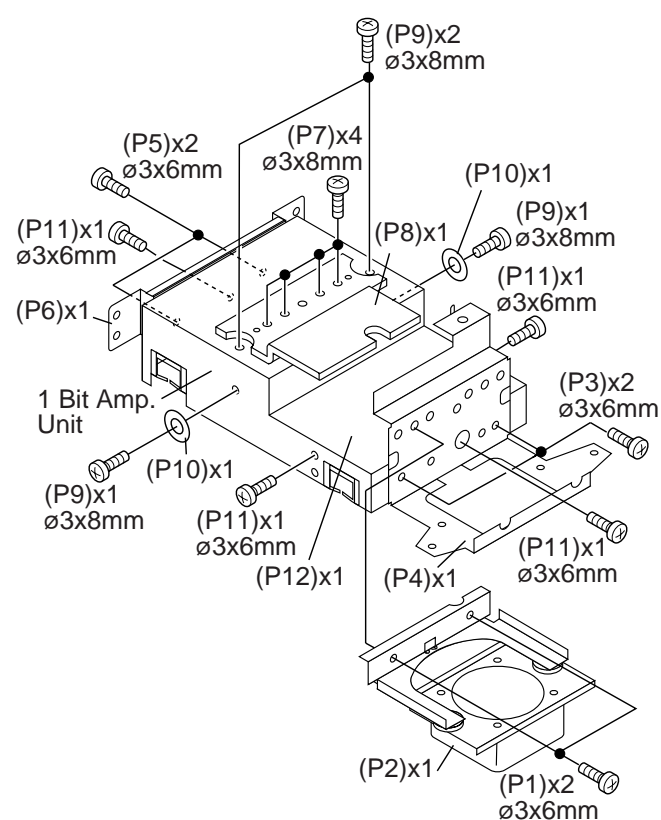


Figure 11-5

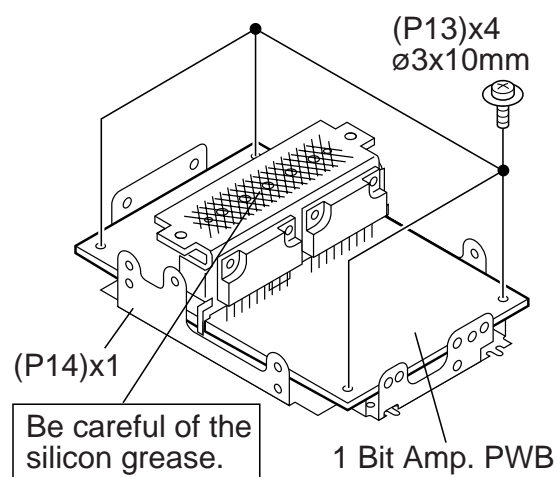


Figure 11-6

SD-CX1W

SD-CX1W (MD MECHANISM UNIT)			
STEP	REMOVAL	PROCEDURE	FIGURE
15	MD Mechanism holder (Left/Right)	1. Screw (Q1) x4	12-1
16	Shield Cover (Top/Side/Bottom)	1. Screw (R1) x5 2. Screw (R2) x1	12-1
17	MD Mechanism	1. Flat Cable (S1) x3 2. Socket (S2) x2 3. Flexible PWB (S3) x1	12-1
18	MD Main PWB	1. Screw (T1) x2	12-1

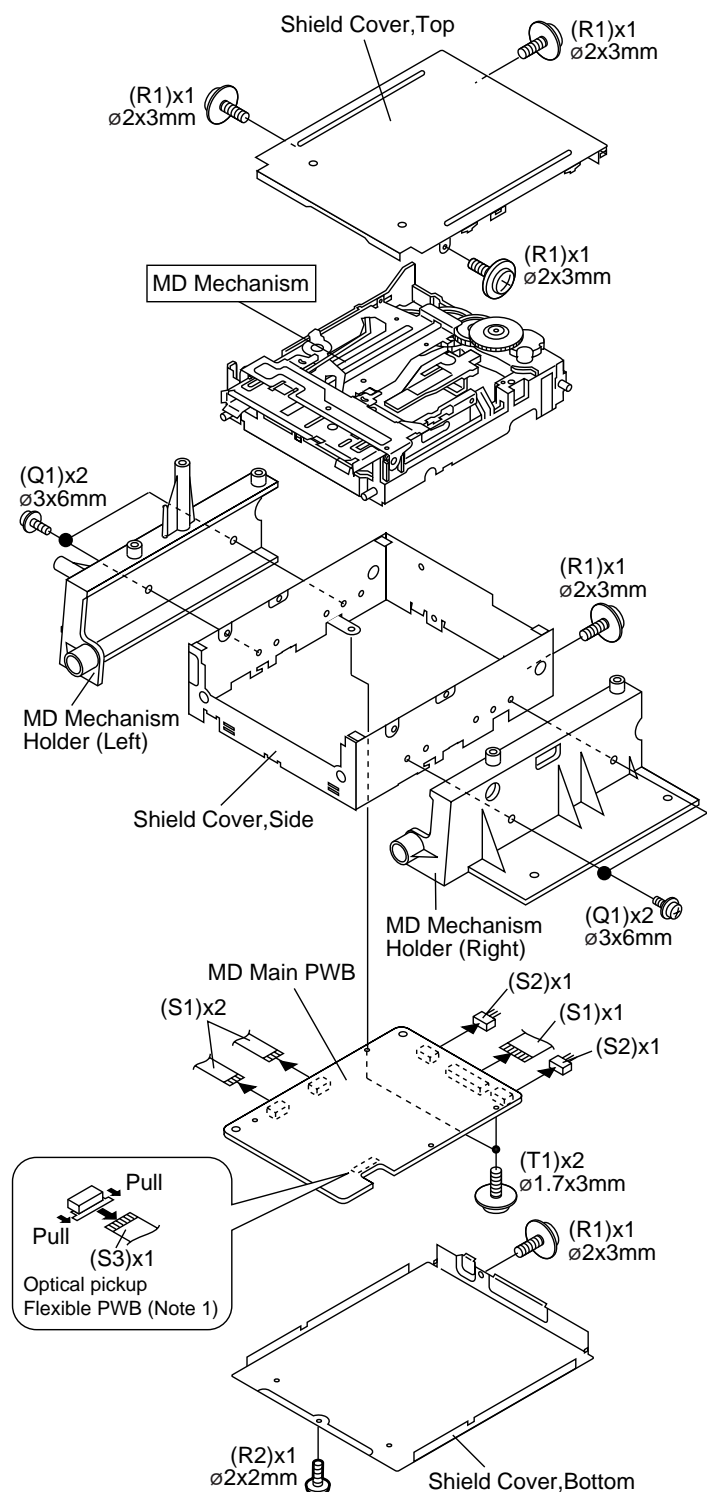


Figure 12-1

CP-CX1W			
STEP	REMOVAL	PROCEDURE	FIGURE
1	Rear Cabinet	1. Screw (A1) x6	12-2
2	Tweeter	1. Screw (B1) x4	12-3
3	Woofer	1. Screw (C1) x4	12-3

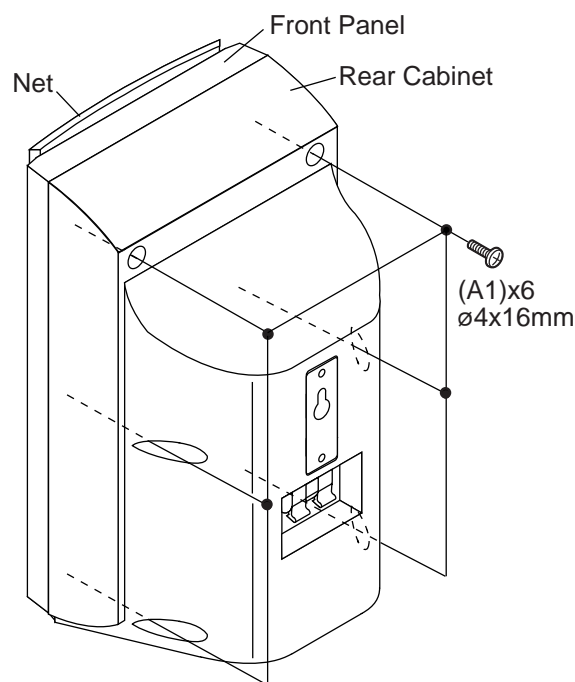


Figure 12-2

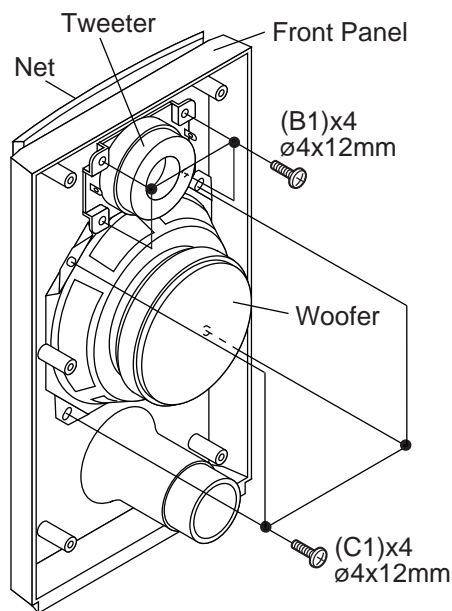


Figure 12-3

REMOVING AND REINSTALLING THE MAIN PARTS

MD MECHANISM SECTION

For details about the procedure to remove the MD mechanism from the main unit, refer to the Disassembly Procedure, Steps 1-8 and 15-18 in the main unit and also the MD section. (Referring to pages 10 and 12.)

Caution:

After pulling out the optical pickup connector, wrap the end of the connector in conductive aluminium foil to prevent the optical pickup from being destroyed by static electricity.

How to remove the magnetic head

(See Fig. 13-1)

1. Remove the screw (A1) x 1 pc.

Caution:

Take utmost care so that the magnetic head is not damaged when it is mounted.

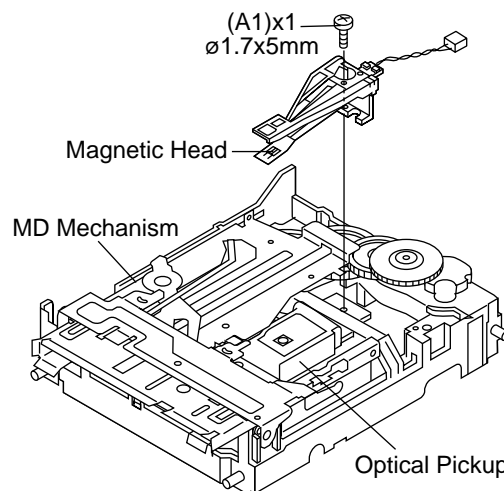


Figure 13-1

How to remove the MD loading motor PWB/MD loading motor

(See Fig. 13-2)

1. Remove the screw (B1) x 1 pc.
2. Remove the Hooks (B2) x 3 pcs., and remove the MD Loading motor PWB.
3. Remove the screws (B3) x 2 pcs., and remove the MD Loading motor.

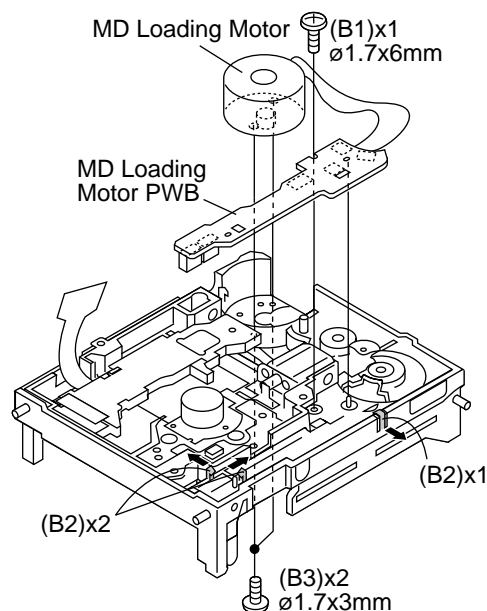


Figure 13-2

How to remove the MD sled motor/optical pickup

(See Fig. 13-3)

1. Remove the screws (C1) x 3 pcs., and remove the MD sled motor.
2. Remove the optical pickup.

Caution:

Be careful so that the gear is not damaged. (The damaged gear emits noise during searching.)

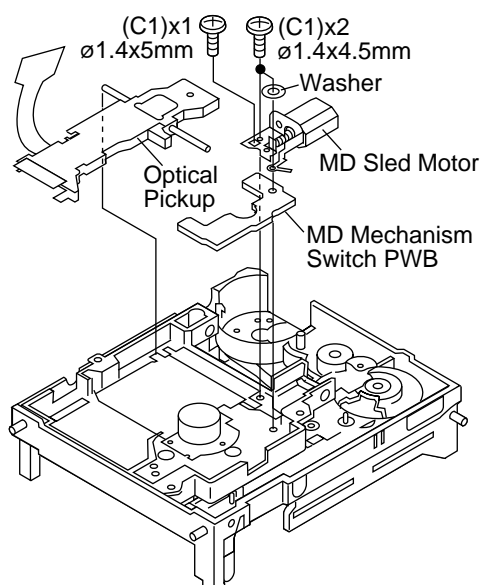


Figure 13-3

SD-CX1W

How to remove the MD spindle motor (See Fig. 14-1)

1. Remove the screws (D1) x 3 pcs., and remove the MD spindle motor.

Caution:

Be careful so that the gear is not damaged.
(The damaged gear emits noise during searching.)

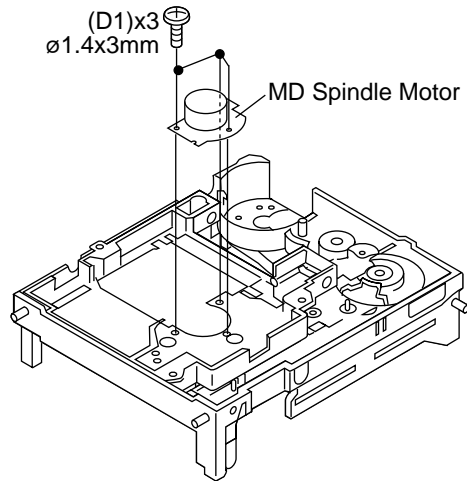


Figure 14-1

CD MECHANISM SECTION

Perform steps 1 to 11 of the disassembly method to remove the CD mechanism. (See pages 10-11.)

How to remove the pickup (See Fig. 14-2)

1. Remove the CD mechanism cover, paying attention to the pawls (A1) x 4 pcs.
2. Remove the screws (A2) x 2 pcs., to remove the shaft (A3) x 1 pc.
3. Remove the stop washer (A4) x 1 pc., to remove the gear (A5) x 1 pc.
4. Remove the pickup.

Note:

After removing the connector for the optical pickup from the connector, wrap the conductive aluminium foil around the front end of connector remove to protect the optical pickup from electrostatic damage.

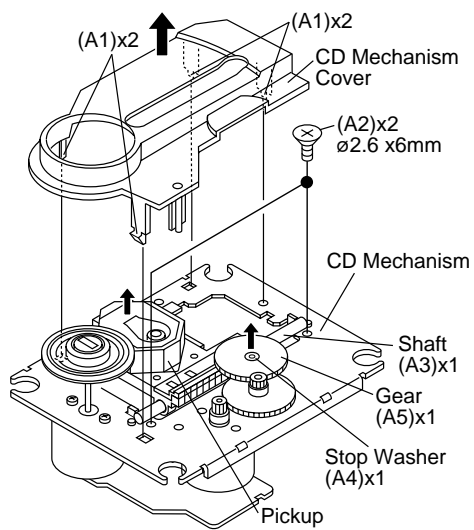


Figure 14-2

How to Remove the CD lid motor (See Fig. 14-3.)

1. Remove the front panel.
(Refer to the disassembly method on page 10.)
2. Remove the screws (B1) x 4 pcs.
3. Remove the CD lid gear unit from the front panel.
4. Remove the screws (B2) x 5 pcs. to remove the gear box B.
5. Remove the gear (B3) x 1 pc.
6. Remove the screws (B4) x 2 pcs. to remove the CD lid motor.

Caution:

Be careful not to damage the gear.
(If the gear is damaged, noise is heard when searching.)

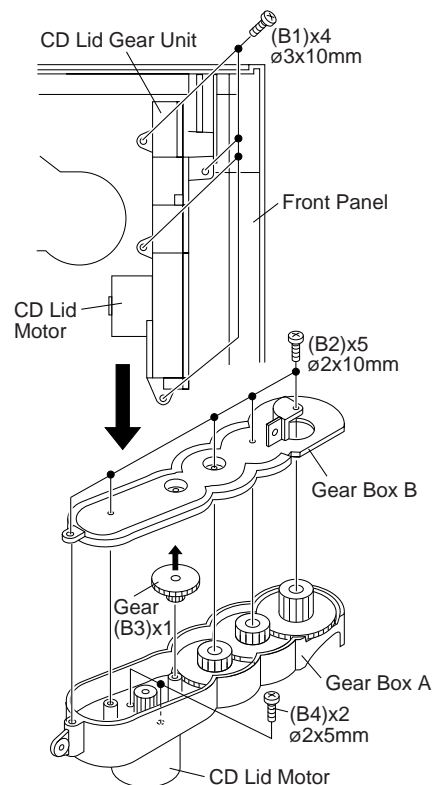


Figure 14-3

DESCRIPTION OF CIRCUIT FOR 1-BIT AMP. UNIT

(SEE THE SCHEMATIC DIAGRAMS ON PAGES 50 AND 51.)

Input

Signals over certain level input from BIA106 are sliced into waveforms by RA173 (RA174), DA126, and DA127 (DA128, DA129).

The slice levels depend on the output of the unit.

In case of 25 W output setting, the level is set to gain distortion of approx. 10 % during output.

The level on the positive side is determined by RA175, RA177 and RA179 and that on the negative side by RA176, RA178, and RA180, respectively.

After DC cut by CA108, the signals are input to AD conversion IC.

$\Delta\Sigma$ modulation 1-bit conversion

The signals input to the AD conversion IC are converted into 1-bit signals for differential output.

For detailed technical description of 1-bit signal conversion, refer the technical manual for SM-SX100 already published.

Dead time and level shift

When the 1-bit signals are output from the AD conversion IC, the leading edge of the waveform is delayed for 20 to 25 nsec by DA103 (DA102, DA101, and DA100), RA115 (RA114, RA113, and RA112), and CA155 (CA154, CA153, and CA152), compared with the trailing edge.

As mentioned below, this operation is for reducing switching circuit loss in the final stage.

The signals are input to the buffer IC (AND gate IC) for the waveform format and are output.

Then the DC level is shifted by CA115 (CA114, CA113, and CA112), DA107 (DA106, DA105, and DA104) and RA120 (RA119, RA118, and RA117). This is because the buffer IC operates between ground and + 5 V, while the next stage IC, gate driver (ICA101 to ICA 104), operates between the negative power source and + 9 V.

The shift quantity is output with amplitude of 5 V, based on the voltage raised by DA108 and DA109 from the bottom by approx. 2 V.

Output of gate driver

The level-shifted signals are input to the gate driver IC (HIP2100).

Since the final stage FET array is H bridge, two gate drivers are used for 1 CH.

At this time, + and - of differential signals are input by crossing diagonally for the two gate drivers.

(Positive output to ICA101 (ICA103) Hin and ICA102 (ICA104) Lin, and negative output to ICA102 (ICA104) Hin and ICA101 (ICA103) Lin.)

Output of the gate driver drives the gate of FET array connected to H bridge.

FET consists of the lower stage where source is connected to the negative power and the upper stage where drain is connected to the positive power. Lout and Hout are connected to the gate, respectively.

The lower stage FET is driven with 9 V amplitude based on the negative power because the reference voltage is same as in the gate driver. The upper stage FET does not operate as it is because it is based on the positive power. Therefore this gate drive IC (HIP2100) makes up bootstrap, by feeding back from FET output.

As a result, amplitude of Hout is approx. + 6 V of the positive power, based on the negative power.

Low-pass filter circuit

1-bit signals switched at FET are converted into analog signals via the low-pass filter consisting of LA100 (LA102, LA104, and LA106) and CA142 (CA143, CA150, and CA151). Property of the low-pass filter is flat up to 20 kHz and then is attenuated by approx. 3 dB at around 30 kHz.

Dynamic feedback circuit

1-bit signals switched at FET of output stage are amplified between the positive and negative power sources.

With resistance divided, 1-bit signals are fed back to AD conversion IC, via NF resistance 75 kohms.

P-P voltage, which becomes approx. 4 to 7 V, is determined by the regulation property of the transformer depending on the output level.

TO CHECK AND CANCEL PROTECT CIRCUIT DETECTION LINE

1. After power supply, the microcomputer (ICD01) built in this model consecutively monitors the following errors 1 to 4. If any error occurs, 'Er_AP00' is displayed and all power supply except for the one to drive the microcomputer is interrupted.
 1. Abnormal output voltage drop of each regulator.
(below approx. 3 V)
 2. Excessive output offset of 1-bit amplifier.
(over approx. 2 V of DC potential)
 3. Excessive main supply current of 1-bit amplifier.
(over DC approx. 5 A)
 4. Abnormalities of cooling fan motor and its driving circuit.
(stop, etc.)
2. Criteria for judging errors of built-in microcomputer and checking/cancelling detection line.
Condition: The voltage of microcomputer pin 7 (PROTECT) lowering below 3.5 V is regarded as an error.
(In the demonstration mode to stop cooling fan, the voltage of 1.5 V is regarded as an error.)

Checking/Cancelling

Caution: When interrupting the PROTECT detection line, the microcomputer does not operate protectively. In case of an error caused by output short-circuit of each regulator, components and board on the spot may be burnt. Do not interrupt the PROTECT detection line of the microcomputer, if any cause other than the above mentioned is not identified. (For approx. 0.5 seconds after error detection, power is supplied; power supply can be checked with an oscilloscope, etc. As leading and trailing edges of the voltage are so steep that the power supply cannot be checked by the tester.)

1. Abnormal output voltage drop of each regulator

Connect the measuring apparatus (oscilloscope, etc.) to the stabilized output of the regulator to turn on the unit power switch.
If the stabilized output is far smaller (below approx. 3 V) than that shown in the circuit diagram, the regulator and the circuit to be supplied with the power may be defective.

2. Excessive output offset of 1-bit amplifier

After disconnecting the CNPV99 (speaker output connector of 1-bit amplifier), turn on the unit power for the normal operation. (No sound is heard from the speaker.)

* After repairing, adjust the output offset voltage of 1-bit amplifier as shown on page 22.
If the protective operation is observed even after disconnecting the CNPV99, circuits QV95 to 98 (DC voltage detection of speaker output) may be defective.

3. Excessive main supply current of 1-bit amplifier

After disconnecting the CNP801 (main power source connector of 1-bit amplifier), turn on the unit power for the normal operation. (No sound is heard from the speaker.)

* After repairing, adjust the output offset voltage of 1-bit amplifier as shown in page 22.
If the protective operation is observed even after disconnecting the CNP801, the circuit of ICD98/ICV99 (supply current detection circuit) may be defective.

4. Abnormalities of cooling fan motor and its driving circuit (stop, etc.)

Turn on the unit to visually inspect the cooling fan motor till the protective operation starts.

* If the fan is rotating forcefully.
QV94, contact of the CNPV97 (connector for fan motor), or fan may be defective. (CNPV97 pin 3 potential during normal fan operation is approx. 0 V.)

* When the fan is not rotating or seems to be stopping. If it is checked that the CNPV97 (connector for fan motor) is not defective and it is also checked by oscilloscope, etc that voltage of pin 1 (red line of fan) is approx. 5 V, the fan may be defective.

When the voltage of the CNPV97 pin (1) is far lower than 5 V, and base voltage of QV93 is almost the same as that shown in the circuit diagram, the fan or the circuit consisting of PS801, QV91, QV87, and QV93 may be defective.

When the base voltage of QV93 is 0 V or extremely lower than the value shown in the circuit diagram (3.5 V), (FAN-L) and an illustrated line (connector) contact defect or the defect of ICD02 (pin 9) is doubtful.

1-BIT AMP. SECTION

Wiring diagram of the 1-bit Amp. unit

After the wires from the 1-bit amp PWB are wound around the cores as shown in Fig. 17, secure them to the chassis of amp unit with nylon bands (4 pcs).

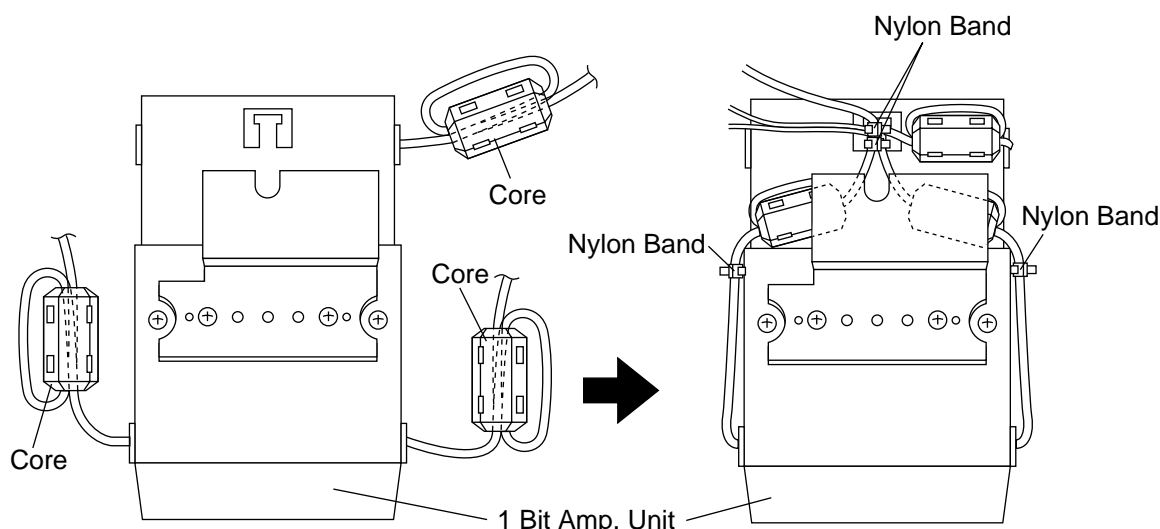


Figure 17

TEST MODE

From power off state to TEST mode

Press the +10 Track Up button (+10) and Tuning/Fast Forward button (▶▶) simultaneously while the POWER button of the main unit is on to obtain the TEST mode. Initially, the version is displayed.

Thereafter press the Tuning/Fast Forward/Fast Reverse button (▶▶) to select the TEST mode and then press the +10 Track Up button (+10) to determine it.

Press the DIRECT button during version display to obtain the designated TEST mode directly.

TEST MODE

No.	TEST MODE	DIRECT KEY	DISPLAY
1	CD TEST	CD-PLAY (CD ▶▶)	CD MENU
2	MD TEST	MD-PLAY (MD ▶▶)	MD MENU
*3	MD DISP TEST	ERASE	MD DIS MENU
*4	REC AGING	MD-REC (● REC)	REC MENU
5	AUX TEST	AUX (DEMO)	AUX MENU
*6	CALENDAR TEST	CD-STOP (CD ■)	DATE MENU
7	KEY TEST	VOL-UP (VOLUME ▲)	KEY MENU
8	TUNER TEST	TUNER/BAND	TUN MENU
*9	LINE TEST	MD-STOP (MD ■)	MD-LINE MENU

The TEST modes 3, 4, 6, and 9 marked with * are under technical examination; their descriptions are omitted.

Cancelling the TEST mode

In each TEST mode, press the POWER button to display COMPLETE for 1 second and then cancel the TEST mode. In the MD TEST mode, press the POWER button again.



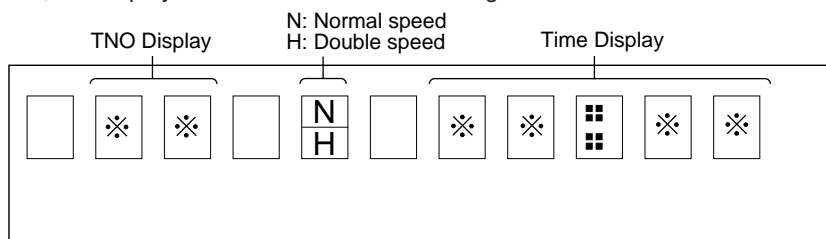
Figure 18
- 18 -

1. CD test

Outline: Readout of the set value after automatic adjustment (for judging difference from initial value).
 Forced operation of pickup (Inner/Outer circumference feed).
 During the PLAY mode, the number of errors accumulated for 10 seconds (750 frames) is displayed.

Basic CD operation by CD-PLAY button

During the TEST mode, the display is turned on and the following buttons become effective.



Operation

1. CD-PLAY: CD operation according to steps
 - STEP 1: LD ON by pressing CD PLAY button in the stop mode.
 - STEP 2: Focus ON by pressing CD PLAY button in STEP 1.
 - STEP 3: CLV servo ON by pressing CD PLAY button in STEP 2.
 - STEP 4: Tracking servo ON by pressing CD PLAY button in STEP 3.
 - STEP 5: Sub-code readout/display by pressing CD PLAY button in STEP 4.
 - * Keep pressing the CD PLAY button for more than 1 second to shift to STEP 5 directly.
2. CD-STOP
 - : To stop the playback operation (shifting from each step to the stop mode).
 - To reset display (during display of coefficient).
3. SKIP-UP (TUNING ^ / ►►)
 - : Forcible shift in the pickup FWD direction.
4. SKIP-DOWN (TUNING v / ◄◄)
 - : Forcible shift in the pickup REV direction.
 - Sliding is stopped when the PU_IN switch is turned on.
5. MD-STOP
 - : Automatic adjustment (at the present pickup position).
6. POWER
 - : Canceling the test mode.
7. REC-MODE
 - : To read the coefficient register while the CD operation is stopped.
 - To display the error number during CD playback.
8. VOLUME UP/DOWN
 - : Normal volume control.
9. CD OPEN/CLOSE
 - : Normal open/close operation.

Readout of the adjusted value

Press the REC-MODE button during the stop mode to read the following items.

Press the C-STOP button to return to the normal display.

Item	Display	Max	Type	Min
Focus balance	__ F B : × ×	7 F	0 0	8 0
Focus gain	__ F G : × ×	1 F	0 0	E 0
Tracking balance	__ T B : × ×	7 F	0 0	8 0
Tracking gain	__ T G : × ×	1 F	0 0	E 0
Focus offset	F O F F : × ×	7 F	0 0	8 0
Tracking offset	T O F F : × ×	7 F	0 0	8 0
RFRP	R F R P : × ×	7 F	0 0	8 0

Even if the CD-PLAY button is pressed initially, automatic adjustment is not obtained. Press the MD-STOP button in the stop mode to gain CD-PLAY for automatic adjustment. Thereafter press the CD-STOP button to stop automatic adjustment. Press the REC-MODE button to display automatically adjusted values.

Readout of error numbers

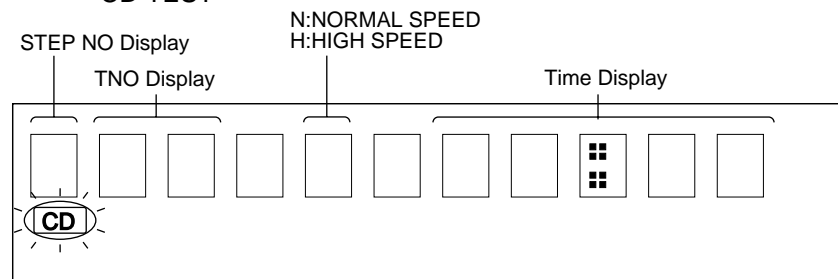
Press the REC-MODE button during playback to display the number of errors accumulated for 10 seconds (750 frames). Press the REC-MODE button during ERR display to return to the normal TEST mode display.

SD-CX1W

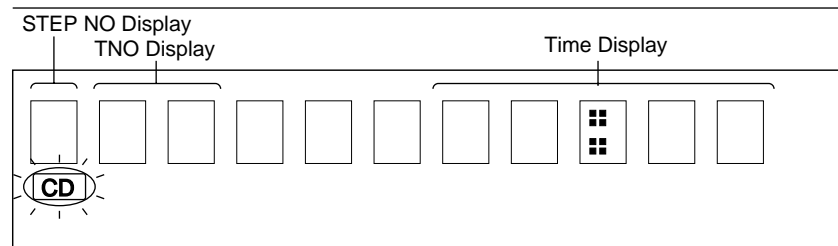
Double-speed mode

Press the MD-REC button in the stop mode to switch to the double/constant-speed mode cyclically.
During the double-speed mode, a flag mark lights up.

CD TEST

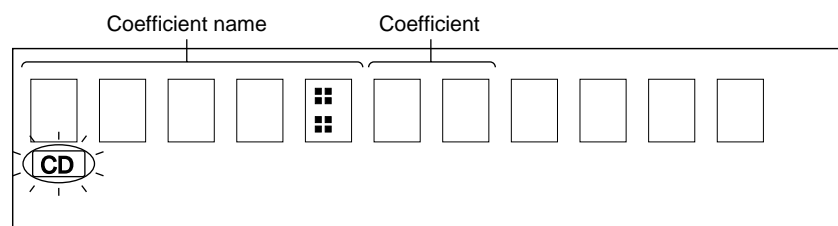


[CD] Flashing



1. STEP No. : 0 when stopped

2. Time display: Blank from the stop mode to STEP 4



Readout of coefficient.

2. MD test mode

Button used during MD test mode

Button Name	Function
CD-PLAY	To feed the menu of the TEST mode (1) (to feed the menu relating to adjustment and EEPROM).
TUNER/BAND	To feed the menu of the TEST mode (2) (to feed the menu mainly relating to continuous playback and recording).
AUX/DEMO	To feed the menu of the TEST mode (3) (to feed the menu of INNER and JUMP SELECT, etc.).
MD-REC	To feed the menu of the TEST mode in reverse (to feed the menu in each test mode in reverse).
MD-PLAY	To select, determine and start the menu.
MD-STOP	To stop each test item and to select the next upper menu.
MD-SKIP-UP (TUNING ^ / ►►)	1. Forced slide feeding (FWD). 2. JUMP operation. 3. Address setting value up, etc.
MD-SKIP-DOWN (TUNING v / ◄◄)	1. Forced slide feeding (REV). 2. JUMP operation. 3. Address setting value down, etc.
VOLUME-UP	1. Forced UNLOAD of DISC. 2. Set value UP.
VOLUME-DOWN	1. Forced LOAD of DISC. 2. Set value DOWN.
CD-STOP	1. To switch laser by EJECT 2. To switch display during continuous playback, etc.
POWER	To operation mode without automatic adjustment.
MD-EJECT	Normal EJECT operation.

5. AUX test mode

Outline: To test the AUX operation

Operation

a. Press the VOL-UP/DOWN button.

MIN (0) ↔ 1 ↔ 25 ↔ MAX (40)

(The volume can be switched among 4 levels.)

b. Switching of the graphic equalizer and switching test for X-BASS ON/OFF and SURROUND ON/OFF are possible.

c. Press the POWER button to exit the AUX test mode.

7. KEY test

Outline: To check if KEY data are input to the microcomputer accurately.

Operation

All lights of segments on FL go off while the keys are not effective.

Segments corresponding to the keys are lit up as shown below.

The power button is an exception; 2 seconds after all lights are lit, the TEST mode is cancelled.

KEY	Segment
POWER	TEST mode cancelled 2 seconds after all lights are lit.
VOLUME-UP	kHz
VOLUME-DOWN	MHz
TUNER/BAND	[FM]
AUX (DEMO)	[AUX]
ERASE	TOC
MD-EJECT	AM
MD-PLAY	PM
MD-STOP	[MD]
MD-REC	REC MARK
REC-MODE	LP2
PLAY-MODE	REPEAT MARK
+10	LP4
CD-OP/CL	RANDOM
CD-EJECT	FLAG MARK
CD-PLAY	PLAY MARK
CD-STOP	[CD]
SKIP-UP (TUNING \wedge / $\blacktriangleright\blacktriangleright$)	[ST]
SKIP-DOWN (TUNING \vee / $\blacktriangleleft\blacktriangleleft$)	STEREO

8. TUNER TEST

Outline: To test the accurate operation of the tuner.

The following presets are written.

- Reception of Preset 1.
- Press the POWER button to cancel the TEST mode. In this case, preset is entirely erased.

(Regions 1 and 3)

Tuner TEST MODE Preset memory										Span
P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Selector
87.50	108.00	90.00	106.00	98.00	531k	1602k	603k	1404k	990k	50k/9k

(Region 2)

Tuner TEST MODE Preset memory										Span
P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Selector
87.5	108.0	90.0	106.0	98.0	530k	1620k	600k	1400k	990k	100k/10k

Flashing is done if FM 87.5 MHz can't be received.

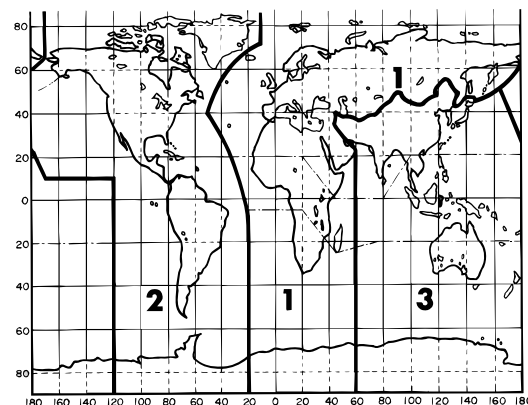
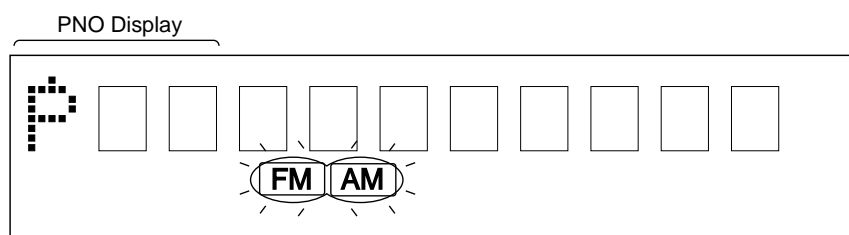


Figure 21-1



The flashing display of FM/AM

Figure 21-2 TEST MODE MENU

ADJUSTMENT

TUNER SECTION

fL: Low-range frequency
fH: High-range frequency

- **AM IF/RF**
Signal generator: 400 Hz, 30%, AM modulated

Adjusting Item	Adjusting object	Adjusting method
AM IF	T351 Indication of set must be 1,620 kHz	IF wavefome 450 kHz is set to max.
AM Band Coverage (Voltage of TP302 VT line)	fL: T306 (522 kHz) Set Display of 522 kHz	fL: 1.3 V ± 0.1 V fH: 8.5 V ± 1.3 V (fH is only check)
AM Tracking	fL: T302 (990 kHz)	Set output of Headphones terminal to maximum.

- **FM Mute Level**
FM Signal oscillator Frequency 400 Hz, 22.5 kHz

Adjusting method	Adjusting method	Adjusting object	Adjusting object
98.0 MHz (30 dB)	98.0 MHz	VR351	Input: SO301B Output: Headphones terminal

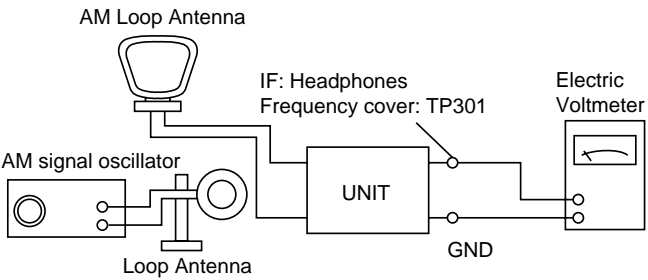


Figure 22-1 AM IF/RF

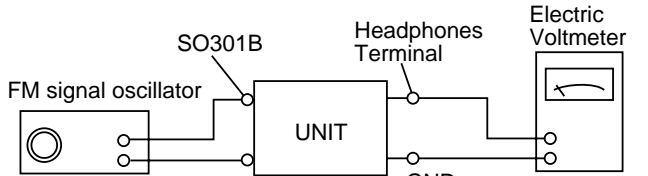


Figure 22-2 FM Mute Level

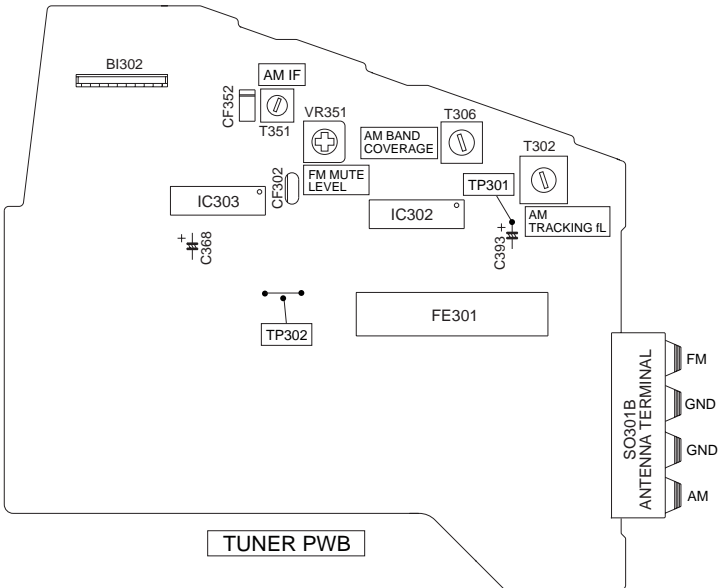


Figure 22-3 ADJUSTMENT POINT

- **Setting the Test Mode**
When setting the tuner test mode, the frequencies are initialized in the memory as shown in Table 22. Refer to the microcomputer test mode function on pages 17 and 21.
If the initialization is executed, the frequencies registered by the user are changed.

Preset. memory	FM frequency	Preset. memory	AM frequency
P01	87.50 MHz	P06	531 kHz
P02	108.00 MHz	P07	1,602 kHz
P03	90.00 MHz	P08	603 kHz
P04	106.00 MHz	P09	1,404 kHz
P05	98.00 MHz	P10	990 kHz

Table 22

- **To erase the registered broadcast stations**
When exiting from the test mode, all preset data is erased.

1-BIT AMP. SECTION

- **1-bit amp. output offset voltage adjustment**
Applying AC 110/127/220/230-240 V, adjust the VRA100/ VRA101 so that the voltage between + and - of the speaker output terminal (BIA110) is within 0 ± 5 mV.

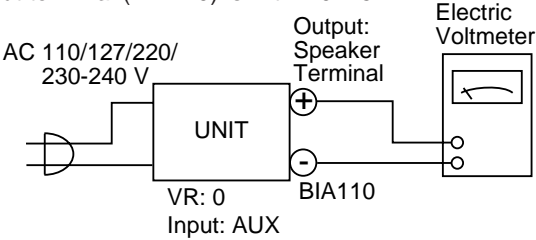


Figure 22-4 Output Offset Lelel

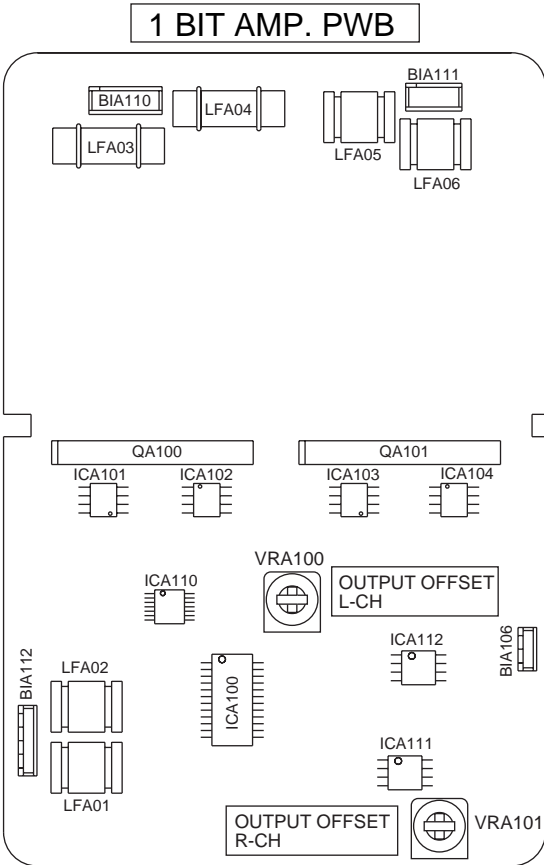


Figure 22-5 ADJUSTMENT POINT

CD SECTION

Since this CD system has the built-in automatic adjustment function, readjustment is not necessary when replacing the pickup. Therefore, any combinations of PWB and pickup can be made.

Since automatic adjustment is executed every time the disc is changed, each disc can be played in the most appropriate condition.

MD SECTION

Enter the test mode, adjust or set as shown in the following table according to the repair operations.

Execution item Repair operations	TEMP basic setting	Checking EEPROM setting	Writing the EEPROM setting	AUTO-YOBI adjustment	AUTO- adjustment	AUTO-AFB adjustment	Writing the EEPROM setting	Operation check	
	TEMP	EEPROM_SET	TEST-CANCEL	AUTO_YOBI	AUTO_ADJ	AUTO_AFB	TEST-CANCEL	TEST-PLAY	TEST-REC
PICK replacement	—	①	②	③	④	⑤	⑥	⑦	⑧
HEAD replacement	—	—	—	—	—	—	—	—	①
MECHANISM replacement	—	①	②	③	④	⑤	⑥	⑦	⑧
MAIN PWB assembly replacement	①	②	③	④	⑤	⑥	⑦	⑧	⑨
MD microcomputer replacement	—	①	②	—	—	—	②	③	④
MD LSI replacement	—	—	—	①	②	③	④	⑤	⑥
RF IC replacement	①	②	③	④	⑤	⑥	⑦	⑧	⑨
EEPROM IC replacement	①	②	③	④	⑤	⑥	⑦	⑧	⑨

number ① to ⑧ and ⑨ indicate the order of implementation.

" — " is an item that you don't have to execute.

The EEPROM writing result is shown at the end of the test mode

OK_EEPROM: "SET" and "YOBI COMPLETE" were written normally

WR_EEPROM: Although "SET" was written normally, it was not written in the "YOBI COMPLETE" state.

→ Perform "AUTO-YOBI" adjustment. After making a normal adjustment, write the preliminary adjustment into the EEPROM.

NG_EEPROM: "SET" could not be written.

→ Check the connection between the MD microcomputer and the EEPROM.

Extension Cable

	Type	Part No.
1	Extension PWB for servicing	RUNTK0532AFZZ
2	Extension Connector (2 Pin)	QCNWK0129AFZZ
3	Extension Flat Cable (6 Pin)	QCNWK0130AFZZ
4	Extension Flat Cable (5 Pin)	QCNWK0109AFZZ
5	Extension Flat Cable (28 Pin)	QCNWK0108AFZZ

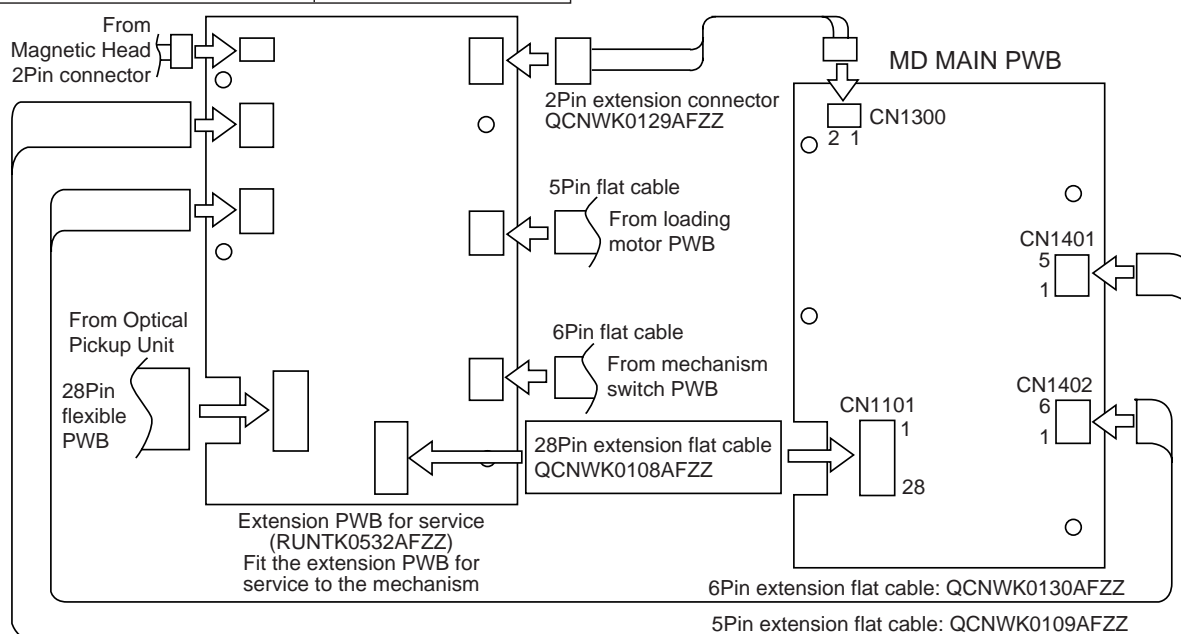


Figure 23 EXTENSION CABLE

SD-CX1W

1. Preparation for adjustment

Test disc

	Type	Test disc	Part No.
1	High reflection disc	TGYS1 (SONY) [for Playback]	RRCDT0101AFZZ
2	Low reflection disc	MiniDisc for checking the recording operation (commercially available MD)	_____
3	_____	Head Adjusting transparent	RRCDT0103AFZZ
4	Low reflection disc	Pre-adjustment disc [TEAC Test MD]	88GMMD-213AS or 88GMMD-318

2. Test Mode

Test mode setting method

- While the +10 forward button (+10) and the REC LEVEL/MD Fast Forward button (▶▶) are pressed down together, press the POWER button and then MD PLAY button. (State ㉑ is changed to state ㉒.)
- Insert the playback-only disc 1 (high reflection disc) or the recordable disc 2 (low reflection disc). (State is changed to ㉓.)

Above procedures will set the unit to the test mode.

㉑ tsm 22○○e○○ : TEST MODE ○○ represents version of MD microcomputer.
 ↓
 STOP state

㉒ EJECT

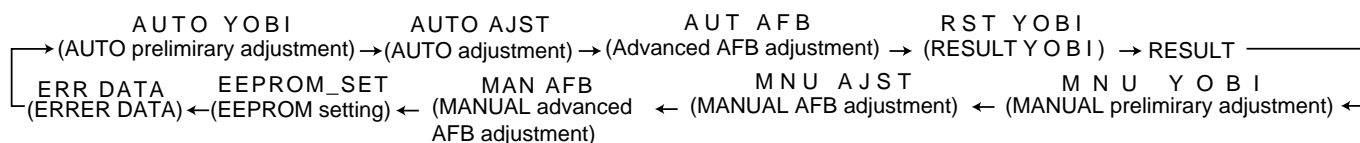
↓
 ㉓ AUTO AJST

(When the MD STOP button is pressed in the ㉓ state, the indication ㉑ is restored. To restore ㉓ again, press the CD PLAY/PAUSE button.)

● Entering the specific mode

Whenever the CD PLAY/PAUSE button is pressed, the mode is changed.

If the REC button is pressed instead, the mode will change in the opposite order.



● Cancel of test mode

The mode is written on EEPROM by pressing the POWER button. If the POWER button is pressed again, the unit returns to the normal state.

* Before pressing the POWER button, make sure that the AUTO pre-adjustment, AUTO adjustment, and AUTO AFB adjustment have been completed.

* After the value of EEPROM is changed or the AUTO pre-adjustment, AUTO adjustment, and AUTO AFB adjustment are performed again, write on EEPROM by pressing the POWER button. (When the POWER button is pressed, data is written on EEPROM.)

* When the value of EEPROM has been changed, write the data on EEPROM once. To perform adjustment using the data, set the unit to the TEST mode again, perform AUTO pre-adjustment, AUTO adjustment, and AUTO AFB adjustment, and then write the data again on EEPROM.

• Test Mode

1. EJECT mode	<ul style="list-style-type: none"> • TEMP setting (of EEPROM setting) • CONTROL setting (of EEPROM setting) • Setting of laser power (record/playback power)
2. AUTO pre-adjustment mode	<ul style="list-style-type: none"> • Automatic pre-adjustment is performed.
3. AUTO adjustment mode	<ul style="list-style-type: none"> • Automatic adjustment is performed. (After adjustment the grating adjustment mode is set.)
4. AUTO AFB adjustment mode	<ul style="list-style-type: none"> • Focus adjustment is performed.
<ul style="list-style-type: none"> • RESULT sub-mode • RESULT mode (final adjustment) • MANUAL pre-adjustment mode • MANUAL adjustment mode • MANUAL AFB adjustment mode • ERROR DATA 	<ul style="list-style-type: none"> • Therefore do not set this mode since it is not necessary for the service.
5. EEPROM setting mode	<ul style="list-style-type: none"> • Various coefficients of digital servo are changed manually.
6. TEST-PLAY mode	<ul style="list-style-type: none"> • Continuous playback from the specified address is performed. • C1 error rate measurement, ADIP error rate measurement.
7. TEST-REC mode	<ul style="list-style-type: none"> • Continuous recording from the specified address is performed.
8. INNER mode	<ul style="list-style-type: none"> • The position where the INNER switch is turned on is measured.

1. EJECT mode

Step No.	Setting Method	Remarks	Display
Step 1	Test mode EJECT state		[_ _ E J E C T _ _ _]
Step 2	Press the CD STOP button.	Playback power output state	[p p w _ _ _ _ _]
Step 3	Press the CD STOP button.	Rec power output state	[r p w _ _ _ _ _]
Step 4	Press the CD STOP button.	Therefore do not set this mode since it is not necessary for the service.	[x p w _ _ _ _ _]
Step 5	Press the TUNER (BAND) button.	TEMP setting of EEPROM setting (The TEMP setting reference of the EEPROM.)	
Step 6	Press the AUX (DEMO) button.	CONTROL setting of EEPROM setting (The CONTROL setting reference of the EEPROM.)	

* Normally, the voltage at pin 3 of IC1401 becomes as follows:

Playback power output (ppw): Approx. DC 0.2 V

Recording power output (rpw): Approx. DC 1.8 V

Confirmation of pickup laser power

It is possible to confirm in the record/playback mode with the aid of laser power meter. However, since the laser power meter measurement is characterized with dispersion, obtained data are used only for confirmation.

Reference data (at room temperature 25°C)

Playback: 0.72 ± 0.1 mW

Record: 5.5 ± 0.5 mW

Note:

Never see directly the laser light. Otherwise your eyes are injured.

2. AUTO pre-adjustment mode (Low reflection disc only)

With the pre-adjustment disc (MMD213A or MMD-318)

Step No.	Setting Method	Remarks	Display
Step 1	Test mode STOP state		[t s m ○○○○ e ○○]
Step 2	Press once the CD PLAY button.	AUTO adjustment menu	[A U T O _ A J S T _]
Step 3	Press the MD REC button.	AUTO pre-adjustment menu	[_ A U T _ Y O B I _]
Step 4	Press once the MD PLAY button. End of adjustment	• During automatic adjustment *** changes as follows. H A o → • • • • • → T C O If adjustment is OK, Step 5. If adjustment is NG, Step 6.	[*** : _ _ _ _ _]
Step 5	Press the MD STOP button.	STEP 2	[_ C O M P L E T E _]
Step 6	Adjustment value output Press the MD STOP button.	STEP 2 AUTO adjustment menu	[C a n ' t _ A D J .]

• *** : Adjustment name

3. AUTO adjustment mode

Step No.	Setting Method	Remarks	Display
Step 1	Test mode STOP state		[t s m ○○○○ e ○○]
Step 2	Press once the CD PLAY button.	AUTO adjustment menu	[A U T O _ A J S T _]
Step 3	Press once the MD PLAY button. End of adjustment	• In case of high reflection disc *** changes as follows. P E G → H A G • In case of low reflection disc *** changes as follows. P E G → L A G If adjustment is OK, Step 4. If adjustment is NG, Step 7.	[*** : _ _ _ _ _]
Step 4	Press the MD PLAY button. Press the MD STOP button.	For grating adjustment STEP 5 STEP 2	[_ C O M P L E T E _] *Note 1
Step 5	Continuous playback (pit section) Continuous playback (groove section)	Confirmation of C1 error	[s □□□□ c ○○○○] [a □□□□ c ○○○○]
Step 6	Press the CD STOP button. Press the MD STOP button.	Conformation of ADIP error (Low reflection only) STEP 2 AUTO adjustment menu	[a □□□□ a ○○○○]
Step 7	Adjustment value output Press the MD STOP button.	STEP 2 AUTO adjustment menu	[C a n ' t _ A D J .]

• *** : Adjustment name, ○○ : Measurement value, □□□□ : Address

* Note 1:

Depending on the disc, "#COMPLETE_" may be displayed, which means that the ON position of the INNER switch cannot be identified clearly. In this case, check the switch in the INNER mode using the specified disc. However, this is not a problem in AUTO adjustment.

SD-CX1W

4. AUTO AFB adjustment mode

Step No.	Setting Method	Remarks	Display
Step 1	Test mode STOP state		[t s m 0000 e 00]
Step 2	Press the CD PLAY button two times.	AUTO AFB adjustment menu	[_ A U T _ A F B _ _]
Step 3	Press once the MD PLAY button.		[F A B 00 _ ΔΔΔΔ]
Step 4	Adjustment value output Press the MD STOP button.	STEP 2 AUTO AFB adjustment	[00 _ ΔΔΔΔΔΔΔ]

• 00 , ΔΔΔΔ : Measurement value

5. EEPROM setting mode

a) Focus setting

Step No.	Setting Method	Display
Step 1	Test mode STOP state	[t s m 0000 e 00]
Step 2	Press the CD PLAY button eight times.	[E E P R O M _ S E T]
Step 3	Press the MD PLAY button.	[_ _ F o c u s _ _ _]
Step 4	Press the MD PLAY button.	[F G _ _ _ _ _ ◆◆]
Step 5	Press the CD PLAY button.	[F G 2 _ _ _ _ ◆◆]
Step 6	Press the CD PLAY button.	[F F 0 _ _ _ _ ◆◆]
Step 7	Press the CD PLAY button.	[F F 1 _ _ _ _ ◆◆]
Step 8	Press the CD PLAY button.	[F F 2 _ _ _ _ ◆◆]
Step 9	Press the CD PLAY button.	[F Z H L E V _ _ ◆◆]
Step 10	Press the CD PLAY button.	[F O K L E V h _ ◆◆]
Step 11	Press the CD PLAY button.	[F O K L E V L _ ◆◆]
Step 12	Press the CD PLAY button.	[F O S T n _ _ _ ◆◆]
Step 13	Press the CD PLAY button.	[D S C J G _ _ _ ◆◆]

• ◆◆ : Setting value

b) Spin setting

Step No.	Setting Method	Display
Step 1	Test mode STOP state	[t s m 0000 e 00]
Step 2	Press the CD PLAY button eight times.	[E E P R O M _ S E T]
Step 3	Press the MD PLAY button.	[_ _ F o c u s _ _ _]
Step 4	Press the CD PLAY button.	[_ S p i n d l e _ _]
Step 5	Press the MD PLAY button.	[S P G _ _ _ _ ◆◆]
Step 6	Press the CD PLAY button.	[S P G _ i n _ _ ◆◆]
Step 7	Press the CD PLAY button.	[S P G _ m i d _ ◆◆]
Step 8	Press the CD PLAY button.	[S P G _ o u t _ ◆◆]
Step 9	Press the CD PLAY button.	[S P G M _ _ _ ◆◆]
Step 10	Press the CD PLAY button.	[S P 1 _ _ _ _ ◆◆]
Step 11	Press the CD PLAY button.	[S P 2 _ _ _ _ ◆◆]
Step 12	Press the CD PLAY button.	[S P 2 2 _ _ _ ◆◆]
Step 13	Press the CD PLAY button.	[S P 3 _ _ _ _ ◆◆]
Step 14	Press the CD PLAY button.	[S P 4 _ _ _ _ ◆◆]
Step 15	Press the CD PLAY button.	[S P 5 _ _ _ _ ◆◆]
Step 16	Press the CD PLAY button.	[S P 5 2 _ _ _ ◆◆]
Step 17	Press the CD PLAY button.	[S P D L I M _ _ ◆◆]
Step 18	Press the CD PLAY button.	[S P K L E V m _ ◆◆]

• ◆◆ : Setting value

c) Tracking setting

Step No.	Setting Method	Display
Step 1	Test mode STOP state	[t s m ○○○○ e ○○]
Step 2	Press the CD PLAY button eight times.	[E E P R O M _ S E T]
Step 3	Press the MD PLAY button.	[_ _ F o c u s _ _ _]
Step 4	Press the CD PLAY button two times.	[_ T r a c k i n g _]
Step 5	Press the CD PLAY button.	[T G _ _ _ _ _ ◆◆]
Step 6	Press the CD PLAY button.	[T G 2 _ _ _ _ _ ◆◆]
Step 7	Press the CD PLAY button.	[T F 0 _ _ _ _ _ ◆◆]
Step 8	Press the CD PLAY button.	[T F 1 _ _ _ _ _ ◆◆]
Step 9	Press the CD PLAY button.	[T F 2 _ _ _ _ _ ◆◆]
Step 10	Press the CD PLAY button.	[F T 3 _ _ _ _ _ ◆◆]
Step 11	Press the CD PLAY button.	[S V C N T 4 _ _ ◆◆]
Step 12	Press the CD PLAY button.	[T R B L V o _ _ ◆◆]
Step 13	Press the CD PLAY button	[T R B L V t _ _ ◆◆]
Step 14	Press the CD PLAY button	[T R K L V o _ _ ◆◆]
Step 15	Press the CD PLAY button	[T R K L V t _ _ ◆◆]
Step 16	Press the CD PLAY button	[T D P W o _ _ _ ◆◆]
Step 17	Press the CD PLAY button	[T D P W t _ _ _ ◆◆]
Step 18	Press the CD PLAY button	[S L C T o _ _ _ ◆◆]
Step 19	Press the CD PLAY button	[S L C T t _ _ _ ◆◆]
Step 20	Press the CD PLAY button.	[S L C T m _ _ _ ◆◆]
Step 21	Press the CD PLAY button.	[T C R S C 1 P _ ◆◆]
Step 22	Press the CD PLAY button.	[T C R S C 0 h _ ◆◆]
Step 23	Press the CD PLAY button.	[T C R S C 0 L _ ◆◆]
Step 24	Press the CD PLAY button.	[T C R S C H h _ ◆◆]
Step 25	Press the CD PLAY button.	[T C R S C H L _ ◆◆]
Step 26	Press the CD PLAY button.	[C O T L V p _ _ ◆◆]
Step 27	Press the CD PLAY button.	[C O T L V r _ _ ◆◆]
Step 28	Press the CD PLAY button.	[J P i n t _ _ _ ◆◆]
Step 29	Press the CD PLAY button.	[K I K 1 0 _ _ _ ◆◆]

◆◆ : Setting value

d) Sled setting

Step No.	Setting Method	Display
Step 1	Test mode STOP state	[t s m ○○○○ e ○○]
Step 2	Press the CD PLAY button eight times.	[E E P R O M _ S E T]
Step 3	Press the MD PLAY button.	[_ _ F o c u s _ _ _]
Step 4	Press the CD PLAY button three times.	[_ _ _ S l e d _ _ _]
Step 5	Press the MD PLAY button.	[S L G _ _ _ _ ◆◆]
Step 6	Press the CD PLAY button.	[S L 2 _ _ _ _ ◆◆]
Step 7	Press the CD PLAY button.	[S L D L I M _ _ ◆◆]
Step 8	Press the CD PLAY button.	[S L D L E V _ _ ◆◆]
Step 9	Press the CD PLAY button.	[S L K L V k _ _ ◆◆]
Step 10	Press the CD PLAY button.	[S L K L V t _ _ ◆◆]
Step 11	Press the CD PLAY button.	[S L K L V m _ _ ◆◆]
Step 12	Press the CD PLAY button.	[S L B K m _ _ _ ◆◆]
Step 13	Press the CD PLAY button.	[S L K r i o _ _ ◆◆]
Step 14	Press the CD PLAY button.	[S L K r o i _ _ ◆◆]
Step 15	Press the CD PLAY button.	[S L K l i o _ _ ◆◆]
Step 16	Press the CD PLAY button.	[S L K l o i _ _ ◆◆]
Step 17	Press the CD PLAY button.	[I N N E R 1 _ _ ◆◆]
Step 18	Press the CD PLAY button.	[I N N E R u _ _ ◆◆]
Step 19	Press the CD PLAY button.	[E J _ W A I T _ _ ◆◆]

◆◆ : Setting value

SD-CX1W

e) TEMP setting

Step No.	Setting Method	Display
Step 1	EJECT state (or state without mechanism)	[_ _ E J E C T _ _ _]
Step 2	Press the TUNER (BAND) button.	[T E M P _ ○ ○ _ ◆◆]

◆◆ : Setting value, ○○ : Measurement value

f) CONTROL setting

Step No.	Setting Method	Display
Step 1	Test mode STOP state	[t s m ○ ○ ○ ○ e ○ ○]
Step 2	Press the CD PLAY button eight times.	[E E P R O M _ S E T]
Step 3	Press the MD PLAY button.	[_ _ F o c u s _ _ _]
Step 4	Press the CD PLAY button five times.	[_ C o n t r o l _ _]
Step 5	Press the MD PLAY button.	[C O N T R L 1 _ ◆◆]
Step 6	Press the CD PLAY button.	[C O N T R L 2 _ ◆◆]
Step 7	Press the CD PLAY button.	[A D J T T M _ _ ◆◆]
Step 8	Press the CD PLAY button.	[H D E Q A D _ _ ◆◆]
Step 9	Press the CD PLAY button.	[L D E Q A D _ _ ◆◆]
Step 10	Press the CD PLAY button.	[G D E Q A D _ _ ◆◆]
Step 11	Press the CD PLAY button.	[G D E Q A D 2 _ ◆◆]
Step 12	Press the CD PLAY button.	[H D E Q B C _ _ ◆◆]
Step 13	Press the CD PLAY button.	[L D E Q B C _ _ ◆◆]
Step 14	Press the CD PLAY button.	[G D E Q B C _ _ ◆◆]
Step 15	Press the CD PLAY button.	[G D E Q B C 2 _ ◆◆]
Step 16	Press the CD PLAY button.	[H A L S G _ _ _ ◆◆]
Step 17	Press the CD PLAY button.	[L A L S G _ _ _ ◆◆]
Step 18	Press the CD PLAY button.	[G A L S G _ _ ◆◆]
Step 19	Press the CD PLAY button.	[H A L S O F S _ ◆◆]
Step 20	Press the CD PLAY button.	[L A L S O F S _ ◆◆]
Step 21	Press the CD PLAY button.	[G A L S O F S _ ◆◆]

◆◆ : Setting value

g) ADJUST setting

Step No.	Setting Method	Display
Step 1	Test mode STOP state	[t s m ○ ○ ○ ○ e ○ ○]
Step 2	Press the CD PLAY button eight times.	[E E P R O M _ S E T]
Step 3	Press the MD PLAY button.	[_ _ F o c u s _ _ _]
Step 4	Press the CD PLAY button six times.	[A D J S E T _ _ _ _]
Step 5	Press the MD PLAY button.	[C O K _ _ _ _ _ ◆◆]
Step 6	Press the CD PLAY button.	[F A T _ _ _ _ _ ◆◆]
Step 7	Press the CD PLAY button.	[T A T _ _ _ _ _ ◆◆]
Step 8	Press the CD PLAY button.	[C A T _ _ _ _ _ ◆◆]
Step 9	Press the CD PLAY button.	[F A B _ _ _ _ _ ◆◆]
Step 10	Press the CD PLAY button.	[S T R _ _ _ _ _ ◆◆]
Step 11	Press the CD PLAY button.	[S F S _ _ _ _ _ ◆◆]
Step 12	Press the CD PLAY button.	[S T C _ _ _ _ _ ◆◆]

◆◆ : Setting value

h) REC bit setting

Step No.	Setting Method	Display
Step 1	Test mode STOP state	[t s m ○○○○ e ○○]
Step 2	Press the CD PLAY button eight times.	[E E P R O M _ S E T]
Step 3	Press the MD PLAY button.	[_ _ F o c u s _ _ _]
Step 4	Press the CD PLAY button seven times.	[R E C b i t _ S E T]
Step 5	Press the MD PLAY button.	[S P _ W R 5 0 _ ◆◆]
Step 6	Press the CD PLAY button.	[S P _ W R 5 6 _ ◆◆]
Step 7	Press the CD PLAY button.	[S P _ W R 4 4 _ ◆◆]
Step 8	Press the CD PLAY button.	[S P _ W R 5 3 _ ◆◆]
Step 9	Press the CD PLAY button.	[L P 2 W R 5 0 _ ◆◆]
Step 10	Press the CD PLAY button.	[L P 2 W R 5 6 _ ◆◆]
Step 11	Press the CD PLAY button.	[L P 2 W R 4 4 _ ◆◆]
Step 12	Press the CD PLAY button.	[L P 2 W R 5 3 _ ◆◆]
Step 13	Press the CD PLAY button.	[L P 4 W R 5 0 _ ◆◆]
Step 14	Press the CD PLAY button.	[L P 4 W R 5 6 _ ◆◆]
Step 15	Press the CD PLAY button.	[L P 4 W R 4 4 _ ◆◆]
Step 16	Press the CD PLAY button.	[L P 4 W R 5 3 _ ◆◆]
Step 17	Press the CD PLAY button.	[R V D _ _ _ _ _ ◆◆]

◆◆ : Setting value

6. TEST-PLAY mode

(For confirmation of the playback ability at the named address.)

Step No.	Setting Method	Remarks	Display
Step 1	Test mode STOP state		[t s m ○○○○ e ○○]
Step 2	Press the TUNER (BAND) button.	TEST-PLAY menu	[T E S T _ P L A Y _]
Step 3	Press the CD STOP button. Press the MD PLAY button.	ADDRESS setting (Target address initial value is indicated)	[A D R E S _ 0 0 3 2]
Step 4	Continuous playback (pit section) Continuous playback (groove section)	(Address + C1 error indication) (Address + C1 error indication)	[s □□□□ c ○○○○] [a □□□□ c ○○○○]
Step 5	Press the CD STOP button. Continuous playback (groove section)	(Address + ADIP error indication)	[a □□□□ a ○○○○]
Step 6	Press the MD STOP button.	TEST-PLAY menu	[T E S T _ P L A Y _]

- Whenever the TUNER (BAND) button is pressed in the address setting mode, the address changes as follows.
0 0 3 2 → 0 3 C 0 → 0 7 0 0 → 0 8 A 0 → 0 9 5 0 → 0 0 3 2 →

7. TEST-REC mode

With recording mini disc (For confirmation of the playback ability at the named address.)

Step No.	Setting Method	Remarks	Display
Step 1	Test mode STOP state		[t s m ○○○○ e ○○]
Step 2	Press the TUNER (BAND) button two times.	TEST-REC menu	[T E S T _ R E C _ _]
Step 3	Press the CD STOP button.	ADDERS setting (indication of address initial value)	[a 0 0 3 2 _ p w ▽▽]
Step 4	Press the MD PLAY button.	Continuous recording	[a □□□□ _ p w ▽▽]
Step 5	Press the MD STOP button.	TEST-REC menu	[T E S T _ R E C _ _]

- Whenever the TUNER (BAND) button is pressed in the address setting mode, the address changes as follows.
0 0 3 2 → 0 3 C 0 → 0 7 0 0 → 0 8 A 0 → 0 9 5 0 → 0 0 3 2 →

8. INNER mode

Step No.	Setting Method	Remarks	Display
Step 1	Test mode STOP state		[t s m ○○○○ e ○○]
Step 2	Press the AUX (DEMO) button.	INNER menu	[_ _ I N N E R _ _ _]
Step 3	Press the MD PLAY button.	INNER switch position measurement (SUBQ address and C1 error are also indicated.)	[s □□□□ c ○○○○]
Step 4	Press the MD STOP button.	INNER menu	[_ _ I N N E R _ _ _]

- : Address

SD-CX1W

1. Adjustment

Load a high-reflective TGYS1 test disc.

Note:

Adjust the position of the lead-in switch between FF85 to FFD2.

1. Loosen the screw (A1) x 1 pc., fixing the mechanism switch PWB.
2. Retighten the screw while pushing the PWB in the direction of arrow A if the switch position is at FF85 or lower, or in the direction of arrow B if it is at FFD2 or higher, and measure its position again.
3. After adjusting the position, fix it with the screw (A1) x 1 pc. (See Fig. 30-1.)

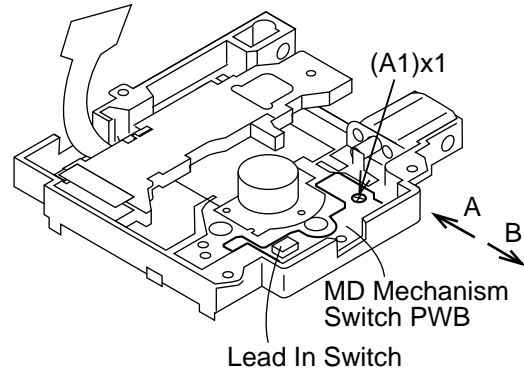


Figure 30-1

2. Confirmation

Check that the display shows "_COMPLETE_" instead of "#COMPLETE_" in step 4 of the AUTO adjustment mode.

● Rotating the loading motor forcibly

The loading motor can be rotated forcibly by rotating the VOL UP/DOWN button while STOP or EJECT in the test mode appears on the display.

● Check of the magnetic head fixing position

- Be sure to check the fixing position of the magnetic head when replacing the magnetic head and the optical pickup.
 - Move the optical pickup to the center in order to make the fixing position adjustment easy.
1. Secure the magnetic head to the optical pickup with screw (B1) x 1 pc.
 2. Set the transparent disc for checking the head.
 3. Lower the magnetic head up shift arm manually to lower the magnetic head.
 4. Check whether the magnetic head aligns with the optical pickup objective, seeing the set from above.
 5. Check that the magnetic head goes up and down smoothly. (See Fig. 30-2.)

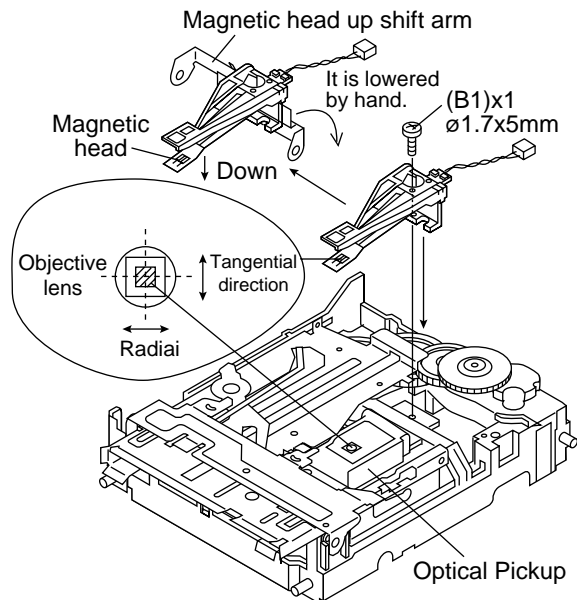


Figure 30-2

● Mechanism Adjustment

1. Optical pickup grating inspecting method

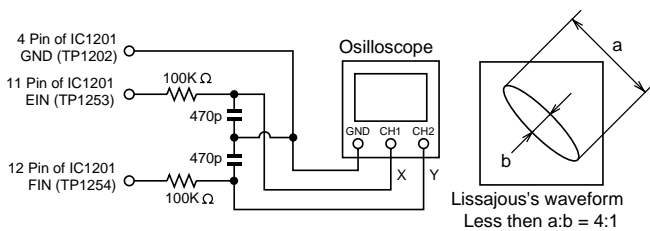


Figure 30-3 Optical Pickup Grating Deviation Measuring Method

After auto adjustment (COMPLETE appears) in the test mode (auto) using the high reflection MD disc TGYS1, adjust the Lissajou's waveform (x-y) of EOUT to FOUT.

1. Slightly loosen the 3 screws of the spindle motor, adjust while observing the Lissajou's waveform.
2. After adjustment, tighten screws 1, 2, and 3 in numerical order. (See Fig. 30-4.)

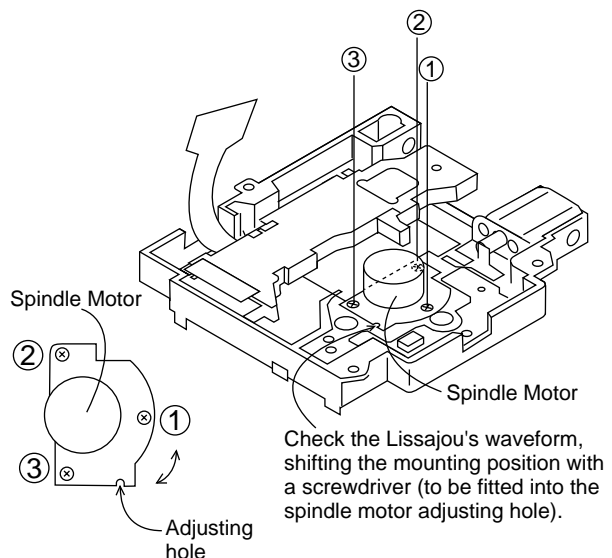


Figure 30-4

ERROR MESSAGE LIST

MD error messages

Error Display	Error Message	Remarks
Can't REC	<ul style="list-style-type: none"> Errors occurred 10 times continuously in the REC-PLAY mode. In the REC-PLAY mode, recording enable cluster became 0 due to errors. Cannot read the address. The unit cannot enter the REC mode for 20 seconds regardless of repetitive tries. 	<ul style="list-style-type: none"> Check for scratch, dust, fingerprints, or black spots on the disc. Check that the disc is not eccentric or largely deflected.
Can't COPY	<ul style="list-style-type: none"> During the REC-PAUSE or REC-PLAY mode, the disc was judged as follows according to the channel status of the digital signal input at D-IN: <ol style="list-style-type: none"> It is not an audio disc. It is not for public use. Due to the inversion of COPY bit on the CD, the contents cannot be copied. 	<ul style="list-style-type: none"> Check if it is the copy-prohibited disc (Example: CD-R etc.).
NO SIG.	<ul style="list-style-type: none"> During the REC-PAUSE, REC-PLAY, or CD FUNC playback mode, the following occurred responding to the digital signal input at D-IN: <ol style="list-style-type: none"> Digital IN PLL is unlocked. PLL is locked even if FS is not 44.1 kHz. 	<ul style="list-style-type: none"> Check for an abnormality with the D-IN signal line.
TOC FULL	<ul style="list-style-type: none"> There is no space left for track numbers or character information (track names, disc name, etc.). No recordable space was found when entering the REC-PAUSE mode. 	<ul style="list-style-type: none"> Replace the disc with the one on which the space for recording UTOC is left.
Can't u READ	<ul style="list-style-type: none"> FTNO > LTNO has been recognized. FTNO is not 0 or 1. Cannot read UTOC recorded on the disc. 	<ul style="list-style-type: none"> There is an error with UTOC data. Replace the disc.
TOC FROM a	<ul style="list-style-type: none"> The start address > end address has been recognized. 	<ul style="list-style-type: none"> There is an error with UTOC data. Replace the disc.
TOC FROM L0-4	<ul style="list-style-type: none"> One of UTOC 0-4 data is looping. 	<ul style="list-style-type: none"> There is an error with UTOC data. Replace the disc.
NOT AUDIO	<ul style="list-style-type: none"> Non-audio data is recorded in the track mode of currently selected track number. 	<ul style="list-style-type: none"> Select another track number or replace the disc.
? DISC	<ul style="list-style-type: none"> The ASCII codes data "MINI" of the system ID written in TOC is not correct. The disc type written in TOC does not belong to either of the pre-master MD, recording MD or hybrid MD. 	<ul style="list-style-type: none"> This is a non-standard disc. Replace the disc and check.
DISC FULL	<ul style="list-style-type: none"> No recordable space was found when entering the REC-PAUSE mode. 	<ul style="list-style-type: none"> Replace the disc with the one on which the recording space for UTOC is left.
PROTECT	<ul style="list-style-type: none"> You tried recording or editing on a disc with the erase-prevention tab moved. You tried editing the track that is write-protected due to the information written in UTOC. 	<ul style="list-style-type: none"> Move the tab back to its original position and try recording or editing again. Try editing other tracks that are not write-protected.
Can't EDIT	<ul style="list-style-type: none"> Conditions in each editing function have not been satisfied. 	<ul style="list-style-type: none"> The unit is not operated properly. Try again in right procedures.
TEMP OVER	<ul style="list-style-type: none"> The temperature inside of the set (MD unit) becomes too high due to an error. 	<ul style="list-style-type: none"> Check the remedy on the troubleshooting chart. Is the unit used in a place of high temperature?
Can't READ * (* : Number or symbol)	<ul style="list-style-type: none"> The read data is not correct, or data has not been read properly. An error occurred while recording sound data, and the recording could not be completed. 	<ul style="list-style-type: none"> There may be an error in TOC or UTOC data or scratches on the disc. Replace the disc.
Can't s READ r READ	<ul style="list-style-type: none"> The read data is not correct. TOC information cannot be read. There may be scratches on the disc. Replace the disc. 	<ul style="list-style-type: none"> TOC information on the disc does not comply with the MD standard. Replace the disc.
Can't WRITE	<ul style="list-style-type: none"> An error occurred while overwriting UTOC, and it could not be overwritten properly. 	<ul style="list-style-type: none"> There may be scratches on the disc. Replace the disc.
BLANK MD	<ul style="list-style-type: none"> Although UTOC is read, total number of letters of TNO and NAME is 0. 	<ul style="list-style-type: none"> Check that the disc is a recordable disc by recording on it.
Er-MD41	<ul style="list-style-type: none"> UTOC can be read but cannot be overwritten. 	<ul style="list-style-type: none"> Is the recording head positioned properly? Check the connection between the PWB and recording head.
Er-MD80	<ul style="list-style-type: none"> EEPROM data is not correct. 	<ul style="list-style-type: none"> Reset the unit and try again. If it does not restore the unit, replace EEPROM.
MD P ERR	<ul style="list-style-type: none"> Due to the abnormality with the power supply, MD unit cannot be operated properly. 	<ul style="list-style-type: none"> Reset the unit and try again. If it does not restore the unit, the power supply circuit is defective. Check the DC voltage of Q570 (E), Q550 (E), and Q853 (E).

SD-CX1W

The details description of mechanism error

Error Display	Error Message
E r - M D 1 ✱	Ejection is not completed.
E r - M D 2 ✱	Head-up is not completed.
E r - M D 3 ✱	Head-down is not completed.

	HINF (93 Pin of IC1401)
✱ = E EJECT complete position	< 1.0 V
✱ = M LOAD/EJECT halfway position	> 3 V
✱ = L LOAD complete position	1.31 ~ 2.35 V
✱ = D HEAD DOWN position	1.01 ~ 1.3 V

EEPROM WRITING PROCEDURE

● EEPROM (IC1402) writing procedure

1. Method for setting the reference temperature value

(This setting should be performed quickly at a room temperature, between 21°C to 29°C when the PWB is not hot.)

- When replacing the EEPROM, wait until it has cooled down.
- Connect the main unit using the single MD main PWB.
- Enter the test mode as shown on page 24.

"EJECT"

- Press the TUNER (BAND) button.

"TEMP ○○ ◆◆"

○○: Measured temperature, ◆◆: Temperature setting

- Find the temperature correction value for the current ambient temperature on the following table. Adjust the temperature correction value using the VOLUME UP/DOWN button.

Ambient Temperature	Correction
+ 21.0 °C ~ + 23.2 °C	-1 H
+ 23.3 °C ~ + 26.8 °C	± 0 H
+ 26.9 °C ~ + 29.0 °C	+1 H

An example: When ambient temperature is 22°C and measured temperature is 7A H

Temperature setting = 7A H - 01 H

= 79 H

* When the measured temperature fluctuates between two values, take lower one (if temperature fluctuates between 7A H and 79 H, take 79 H).

- Press the POWER button and write the temperature setting into the EEPROM.

2. Method for making settings other than the reference temperature

- Install the MD main PWB in the mechanism, and connect it to the main unit.
- Enter the test mode as shown on page 24, and insert a disc.
"AUTO AJST"
- Press the CD PLAY button seven times.
"EEPROM SET"
- Set the value according to the EEPROM DATA LIST using the VOLUME UP/DOWN button.
- Press the POWER button, and the settings will be written into the EEPROM.
- Enter the test mode again, perform an "AUTO YOBİ adjustment", and write the results into the EEPROM.

EEPROM DATA LIST (Version : 01)

Focus setting

Item indication	Setting
F G ○ ○	9 B H
F G 2 ○ ○	B 1 H
F F 0 ○ ○	1 0 H
F F 1 ○ ○	7 0 H
F F 2 ○ ○	E 0 H
F Z H L E V ○ ○	E D H
F O K L E V h ○ ○	0 7 H
F O K L E V L ○ ○	0 9 H
F O S T n ○ ○	2 C H
D S C J G ○ ○	0 D H

Spin setting

Item indication	Setting
S P G ○ ○	1 1 H
S P G — i n ○ ○	6 0 H
S P G — m i d ○ ○	4 B H
S P G — o u t ○ ○	3 B H
S P G M ○ ○	9 6 H
S P 1 ○ ○	1 0 H
S P 2 ○ ○	9 3 H
S P 2 2 ○ ○	9 3 H
S P 3 ○ ○	E D H
S P 4 ○ ○	E E H
S P 5 ○ ○	2 0 H
S P 5 2 ○ ○	2 0 H
S P D L I M ○ ○	6 2 H
S P K L E V m ○ ○	1 6 H

Tracking setting

Item indication	Setting
T G ○○	4 9 H
T G 2 ○○	6 B H
T F 0 ○○	1 0 H
T F 1 ○○	6 B H
T F 2 ○○	F 0 H
T F 3 ○○	0 8 H
S V C N T 4 ○○	0 1 H
T R B L V o ○○	6 2 H
T R B L V t ○○	4 C H
T R K L V o ○○	5 B H
T R K L V t ○○	2 B H
T D P W o ○○	6 7 H
T D P W t ○○	2 1 H
S L C T o ○○	0 0 H
S L C T t ○○	5 0 H
S L C T m ○○	5 3 H
T C R S C I P ○○	1 6 H
T C R S C 0 h ○○	0 0 H
T C R S C 0 L ○○	F A H
T C R S C H h ○○	0 2 H
T C R S C H L ○○	0 2 H
C O T L V P ○○	0 A H
C O T L V r ○○	2 8 H
J P i n t ○○	0 0 H
K I K 1 0 ○○	6 4 H

Sled setting

Item indication	Setting
S L G ○○	4 6 H
S L 2 ○○	1 0 H
S L D L I M ○○	7 F H
S L D L E V ○○	1 4 H
S L K L V k ○○	6 0 H
S L K L V t ○○	3 4 H
S L K L V m ○○	6 0 H
S L B K m ○○	0 8 H
S L K r i o ○○	6 4 H
S L K r o i ○○	6 2 H
S L K l i o ○○	6 4 H
S L K l o i ○○	6 0 H
I N N E R 1 ○○	8 6 H
I N N E R u ○○	D 0 H
E J _ W A I T ○○	7 8 H

Control setting

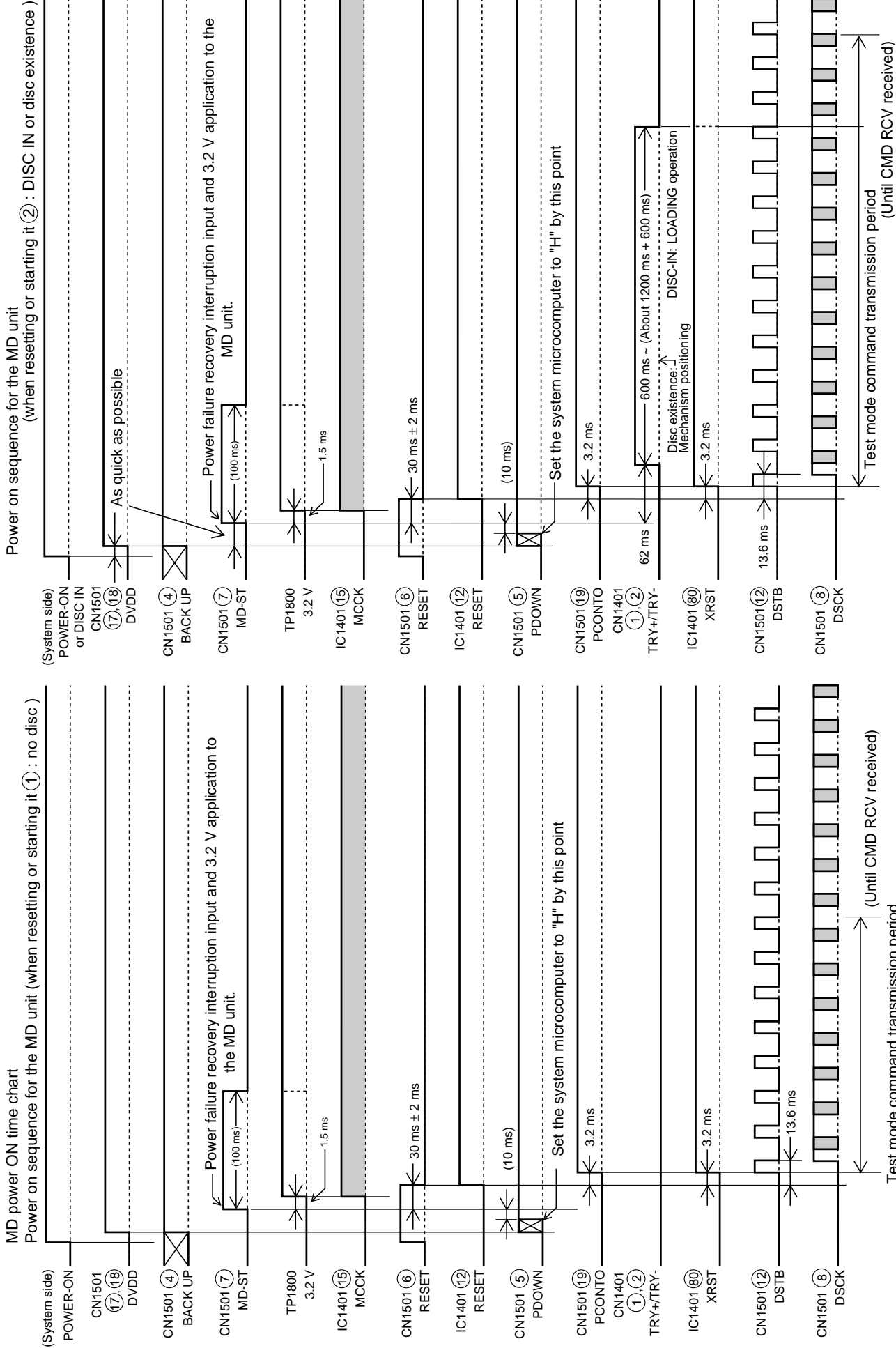
Item indication	Setting
C O N T R L 1 ○○	0 8 H
C O N T R L 2 ○○	0 2 H
A D J T T M ○○	1 4 H
H D E Q A D ○○	9 2 H
L D E Q A D ○○	8 E H
G D E Q A D ○○	9 1 H
G D E Q A D 2 ○○	9 1 H
M D E Q B C ○○	8 C H
L D E Q B C ○○	8 F H
G D E Q B C ○○	8 A H
G D E Q B C 2 ○○	8 A H
H A L S G ○○	1 1 H
L A L S G ○○	1 1 H
G A L S G ○○	1 1 H
H A L S O F S ○○	F F H
L A L S O F S ○○	0 0 H
G A L S O F S ○○	0 0 H
A J S T ○○	0 0 H

ADJUST setting

Item indication	Setting
C O K ○○	5 8 H
F A T ○○	C 0 H
T A T ○○	3 E H
C A T ○○	4 0 H
F A B ○○	6 4 H
S T R ○○	0 B H
S F S ○○	0 D H
S T C ○○	0 D H

REC bit setting

Item indication	Setting
S P _ W R 5 0 ○○	C 0 H
S P _ W R 5 6 ○○	F E H
S P _ W R 4 4 ○○	0 0 H
S P _ W R 5 3 ○○	1 6 H
L P 2 W R 5 0 ○○	8 0 H
L P 2 W R 5 6 ○○	2 0 H
L P 2 W R 4 4 ○○	8 0 H
L P 2 W R 5 3 ○○	0 0 H
L P 4 W R 5 0 ○○	B F H
L P 4 W R 5 6 ○○	0 2 H
L P 4 W R 4 4 ○○	8 0 H
L P 4 W R 5 3 ○○	0 0 H
R V D ○○	0 0 H



NOTES ON SCHEMATIC DIAGRAM

- Resistor:

To differentiate the units of resistors, such symbol as K and M are used: the symbol K means 1000 ohm and the symbol M means 1000 kohm and the resistor without any symbol is ohm-type resistor. Besides, the one with "Fusible" is a fuse type.

- Capacitor:

To indicate the unit of capacitor, a symbol P is used: this symbol P means pico-farad and the unit of the capacitor without such a symbol is microfarad. As to electrolytic capacitor, the expression "capacitance/withstand voltage" is used.

(CH), (TH), (RH), (UJ): Temperature compensation

(ML): Mylar type

(P.P.): Polypropylene type

- Schematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.

- The indicated voltage in each section is the one measured by Digital Multimeter between such a section and the chassis with no signal given.

1. In the tuner section,

: FM stereo

() : AM

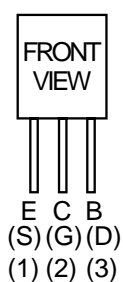
2. In the CD section, the CD is stopped.

- Parts marked with "△" (□ = □ = □) are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

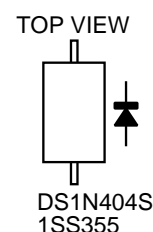
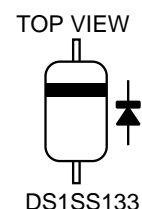
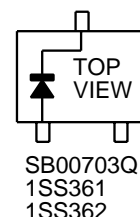
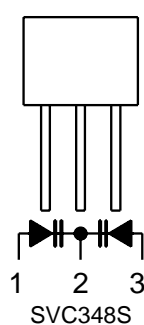
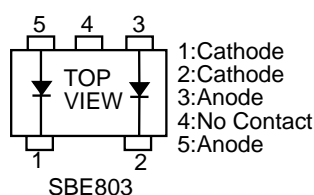
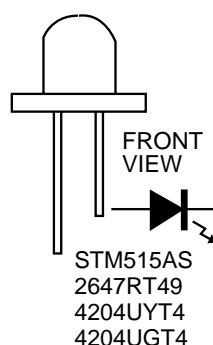
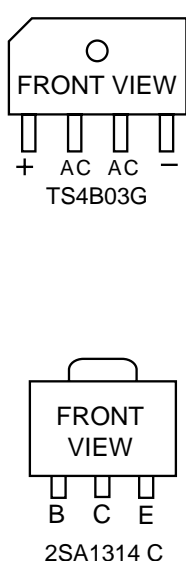
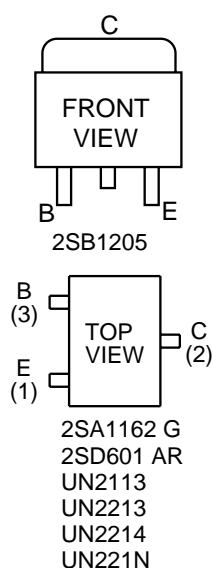
REF. NO	DESCRIPTION	POSITION
NSW802	PICKUP IN	ON—OFF
SW01	CD LID CLOSE	ON—OFF
SW02	CD LID OPEN	ON—OFF
SW601	SPAN SELECTOR	50/9—100/10
SW900	VOLTAGE SELECTOR	230-240 V
SW1930	WRITE PRO	ON—OFF
SW1931	DISC MEDIA	ON—OFF
SW1932	LOADING	ON—OFF
SW1933	RECORD	ON—OFF
SW1934	PLAY	ON—OFF
SW1936	LEAD IN	ON—OFF
SWD02	ON/STAND-BY	ON—OFF
SWD03	MD EJECT	ON—OFF
SWD04	ERASE	ON—OFF
SWD07	CD EJECT	ON—OFF

REF. NO	DESCRIPTION	POSITION
SWD09	VOLUM UP	ON—OFF
SWD10	VOLUME DOWN	ON—OFF
SWD11	SKIP UP	ON—OFF
SWD12	CD PLAY	ON—OFF
SWD13	CD STOP	ON—OFF
SWD14	SKIP DOWN	ON—OFF
SWD15	MD PLAY	ON—OFF
SWD16	MD STOP	ON—OFF
SWD17	PLAY MODE	ON—OFF
SWD18	RECORD MODE	ON—OFF
SWD19	MD RECORD	ON—OFF
SWD20	AUX/DEMO	ON—OFF
SWD21	TUNER(BAND)	ON—OFF
SWD22	+10	ON—OFF

TYPES OF TRANSISTOR AND LED



2SB562 C
2SC2878 B
2SC380 O
KRA107 M
KRC104 M
KRC107 M
KTA1023 Y
KTA1266 GR
KTA1271 Y
KTC3203 Y
KTC3199 GR



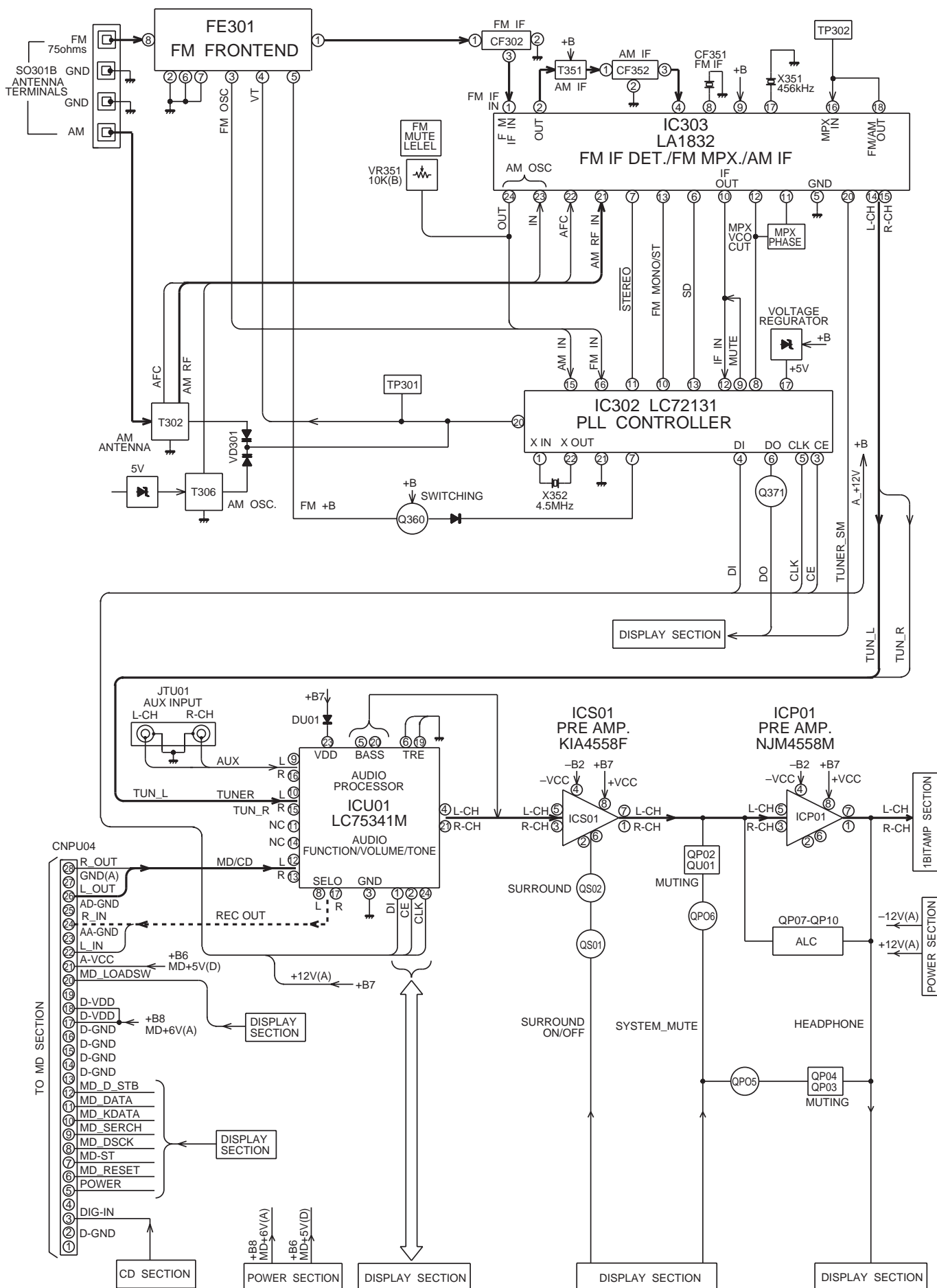


Figure 36 BLOCK DIAGRAM (1/4)

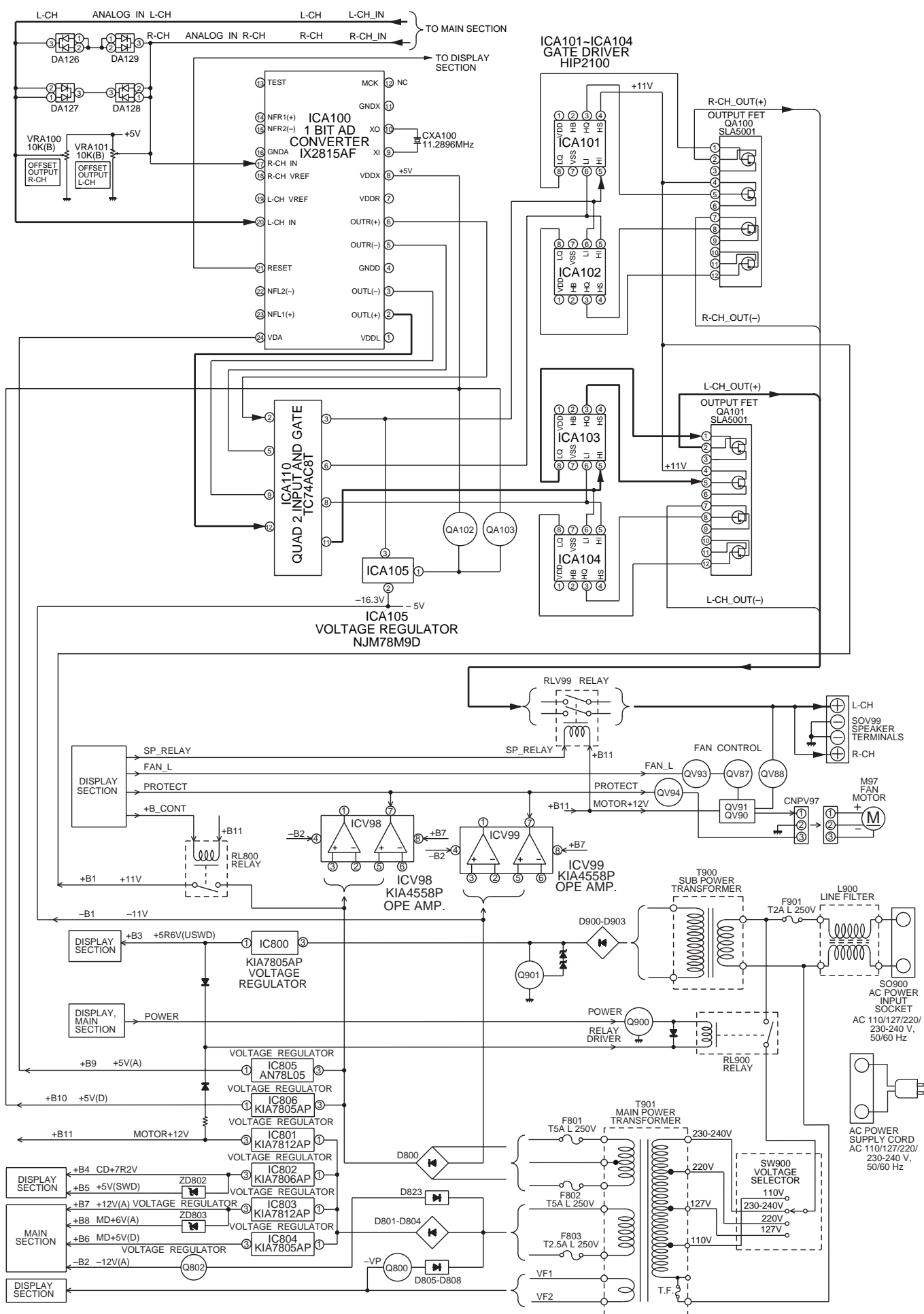


Figure 37 BLOCK DIAGRAM (2/4)

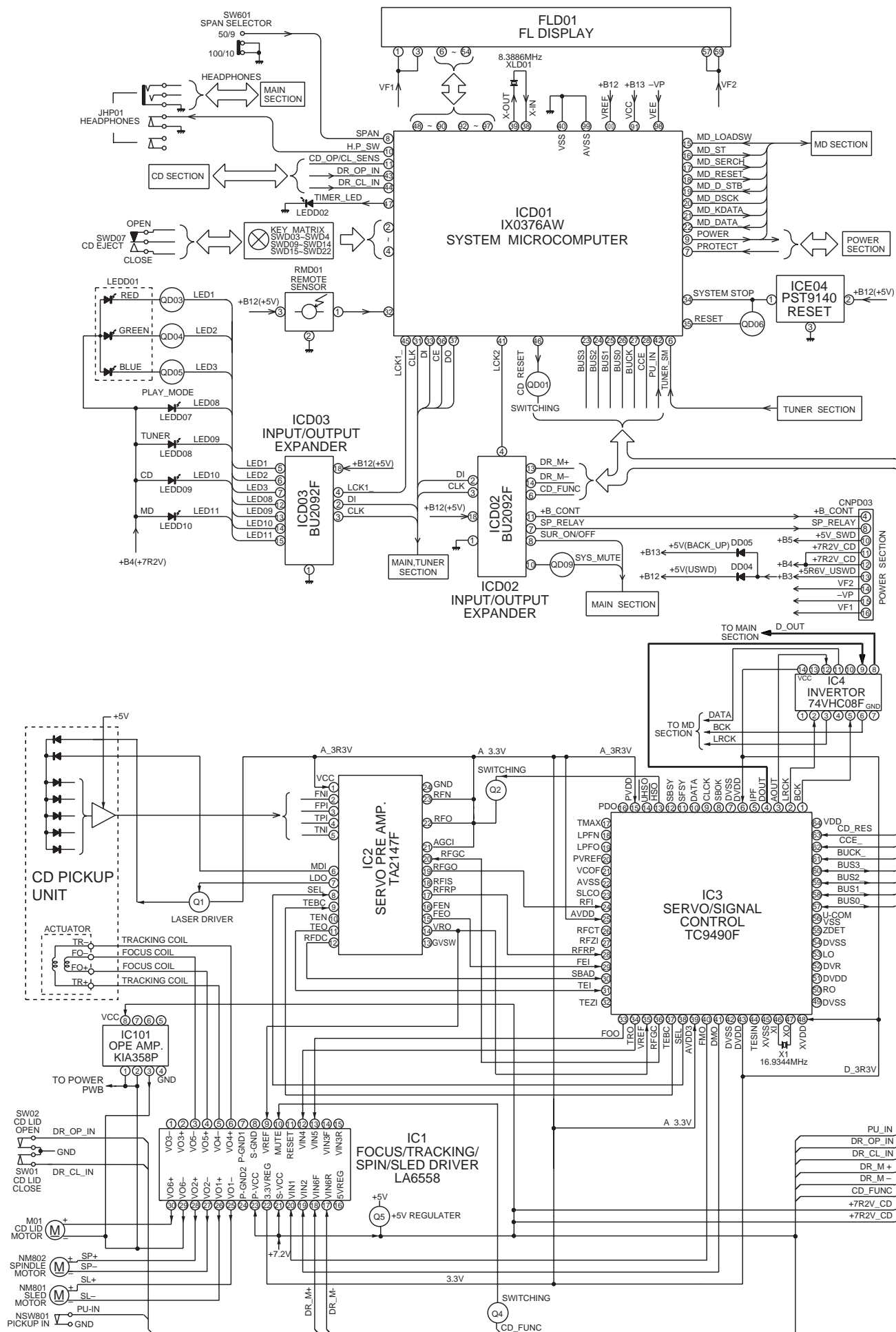


Figure 38 BLOCK DIAGRAM (3/4)

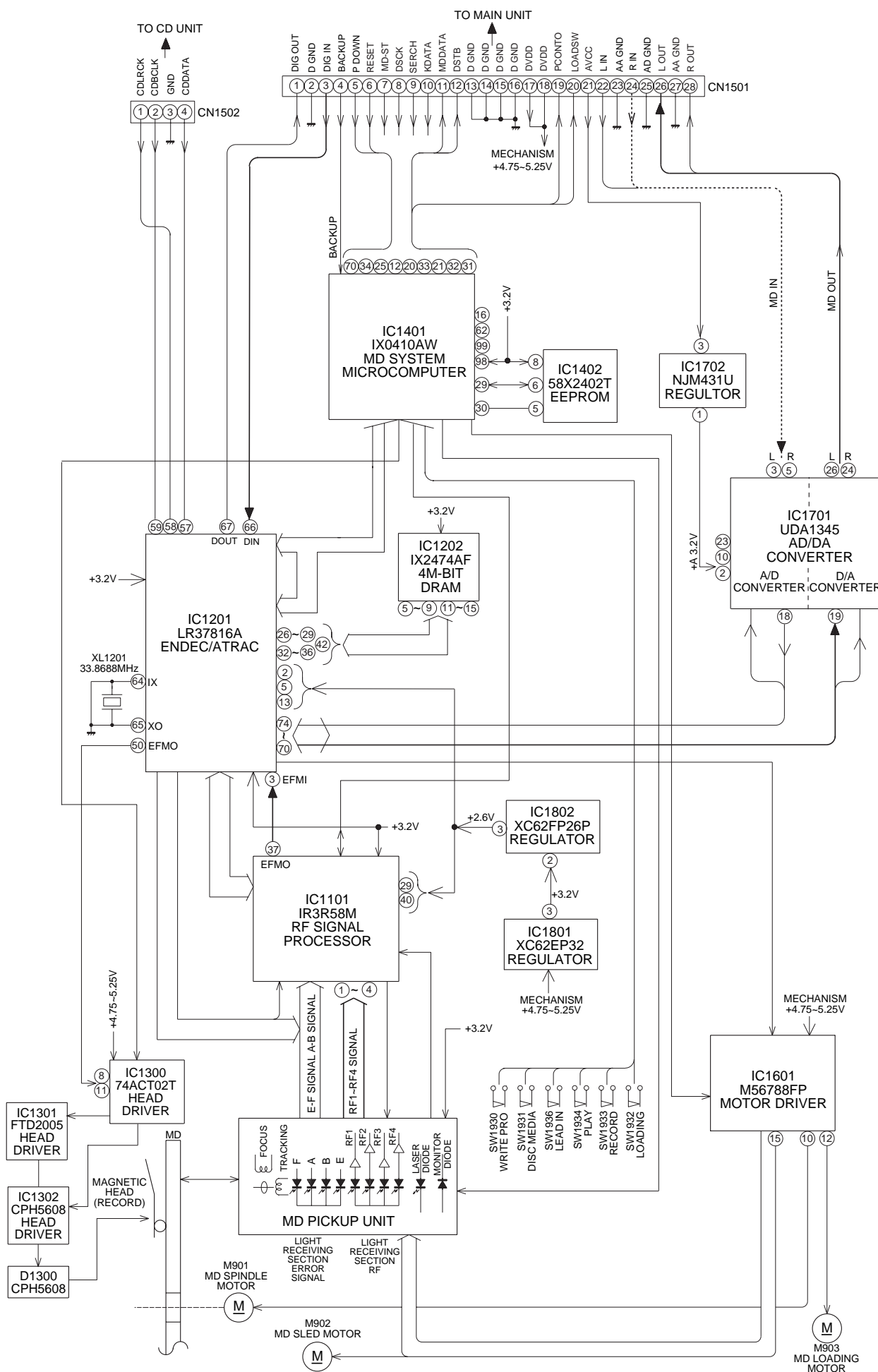


Figure 39 BLOCK DIAGRAM (4/4)

– 40 –

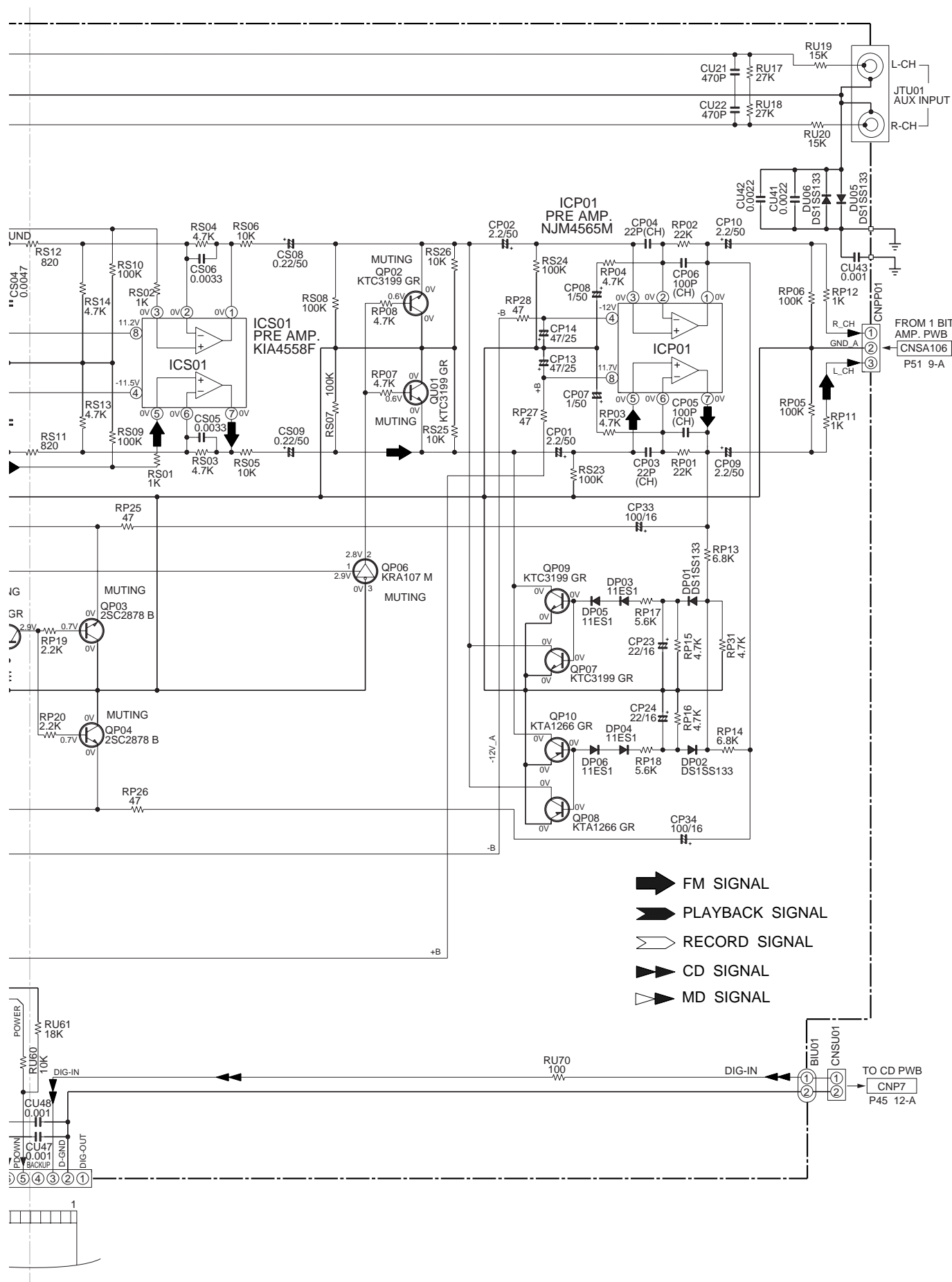
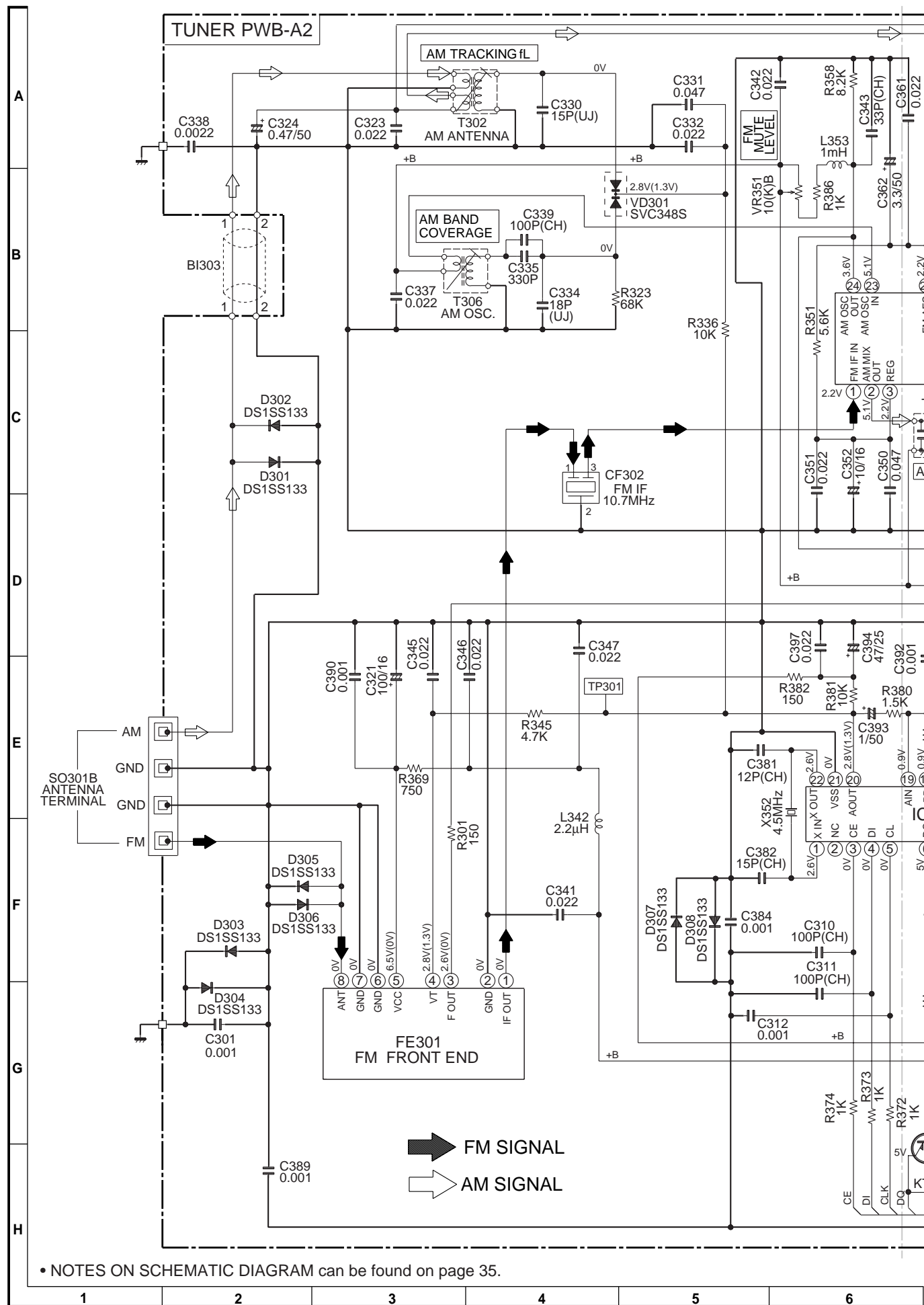


Figure 41 SCHEMATIC DIAGRAM (2/14)



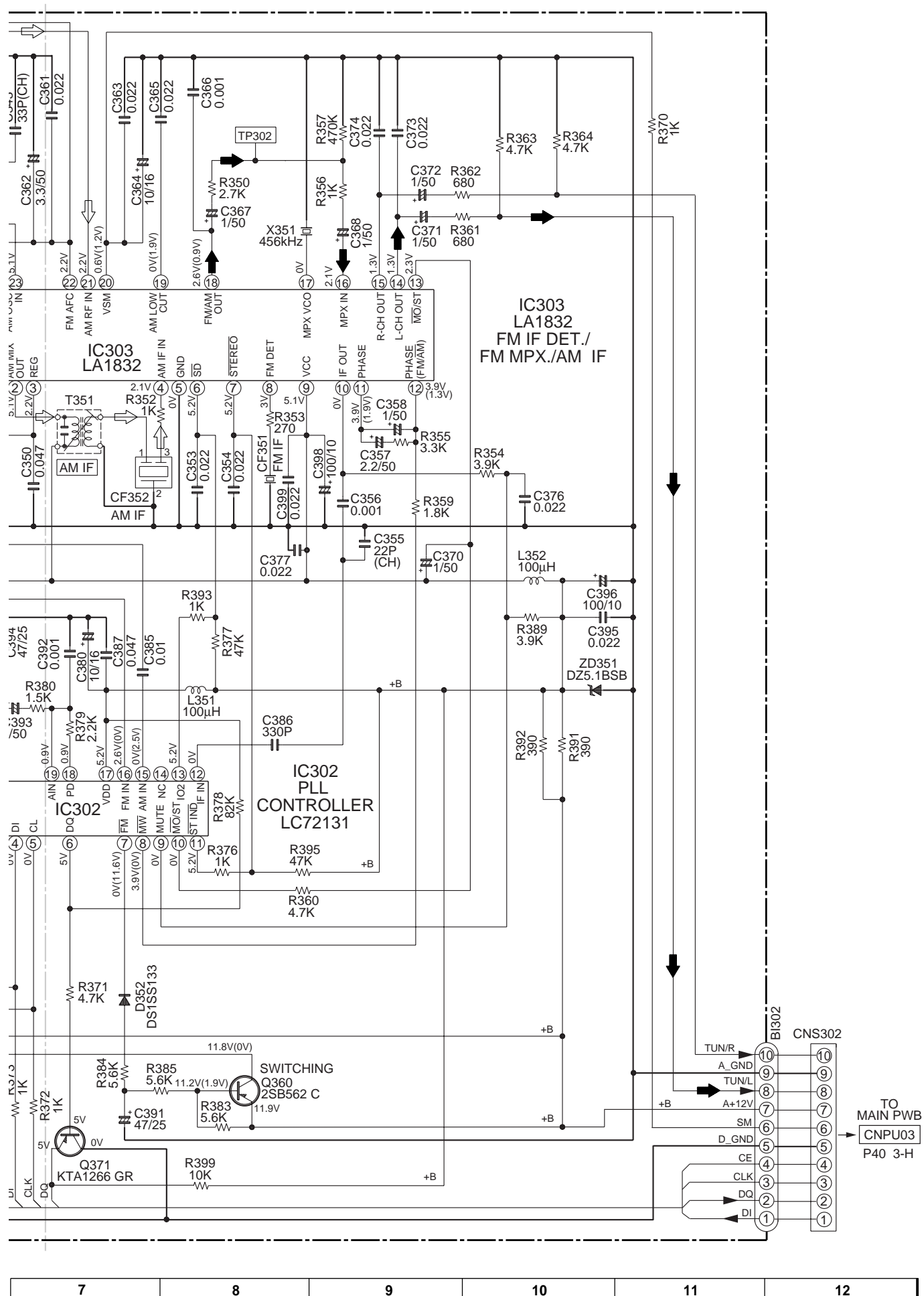
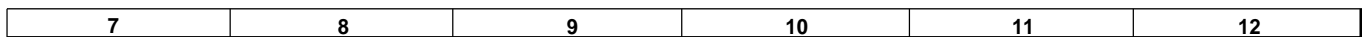


Figure 43 SCHEMATIC DIAGRAM (4/14)





- 45 -

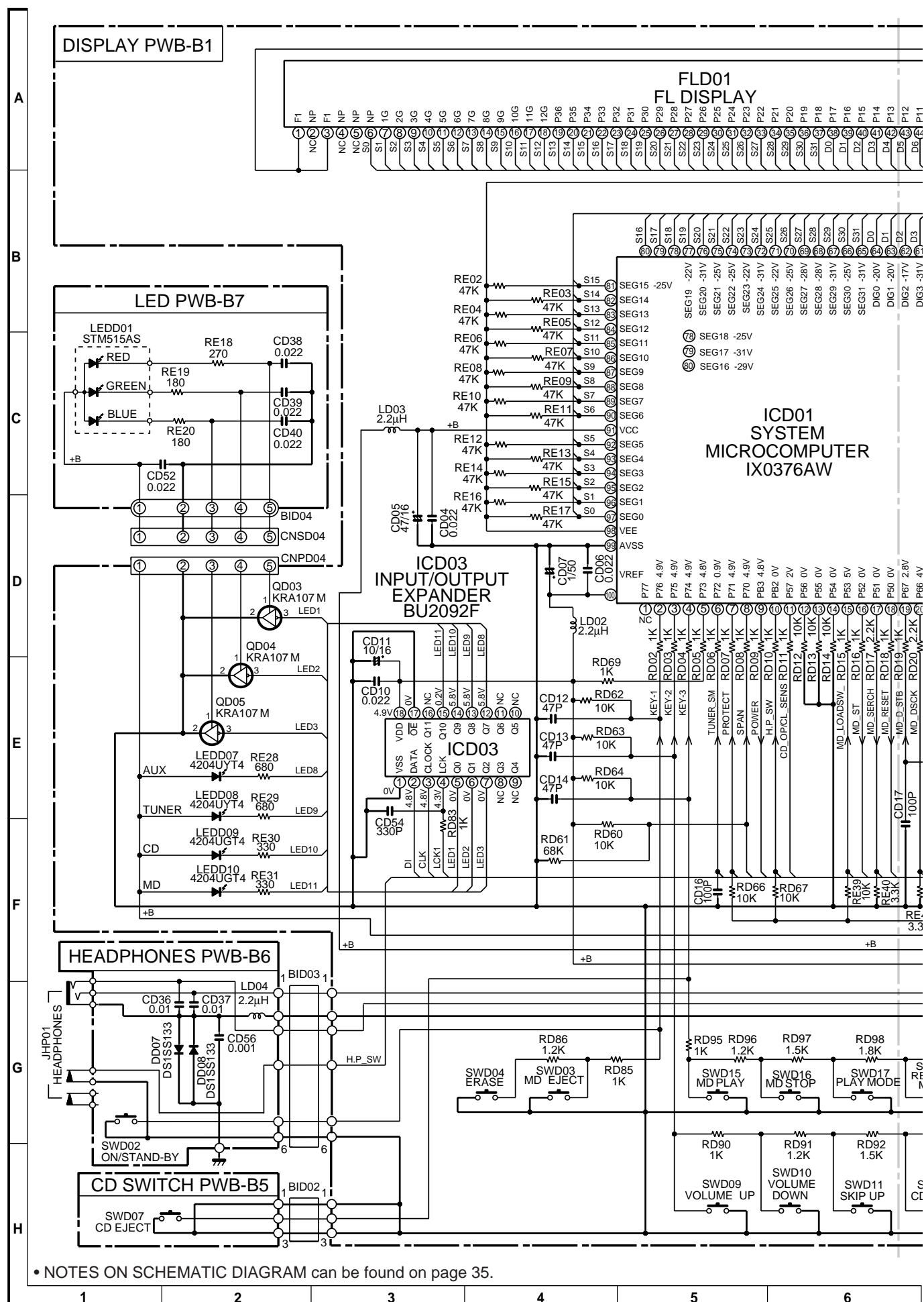


Figure 46 SCHEMATIC DIAGRAM (7/14)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 35.

Figure 48 SCHEMATIC DIAGRAM (9/14)

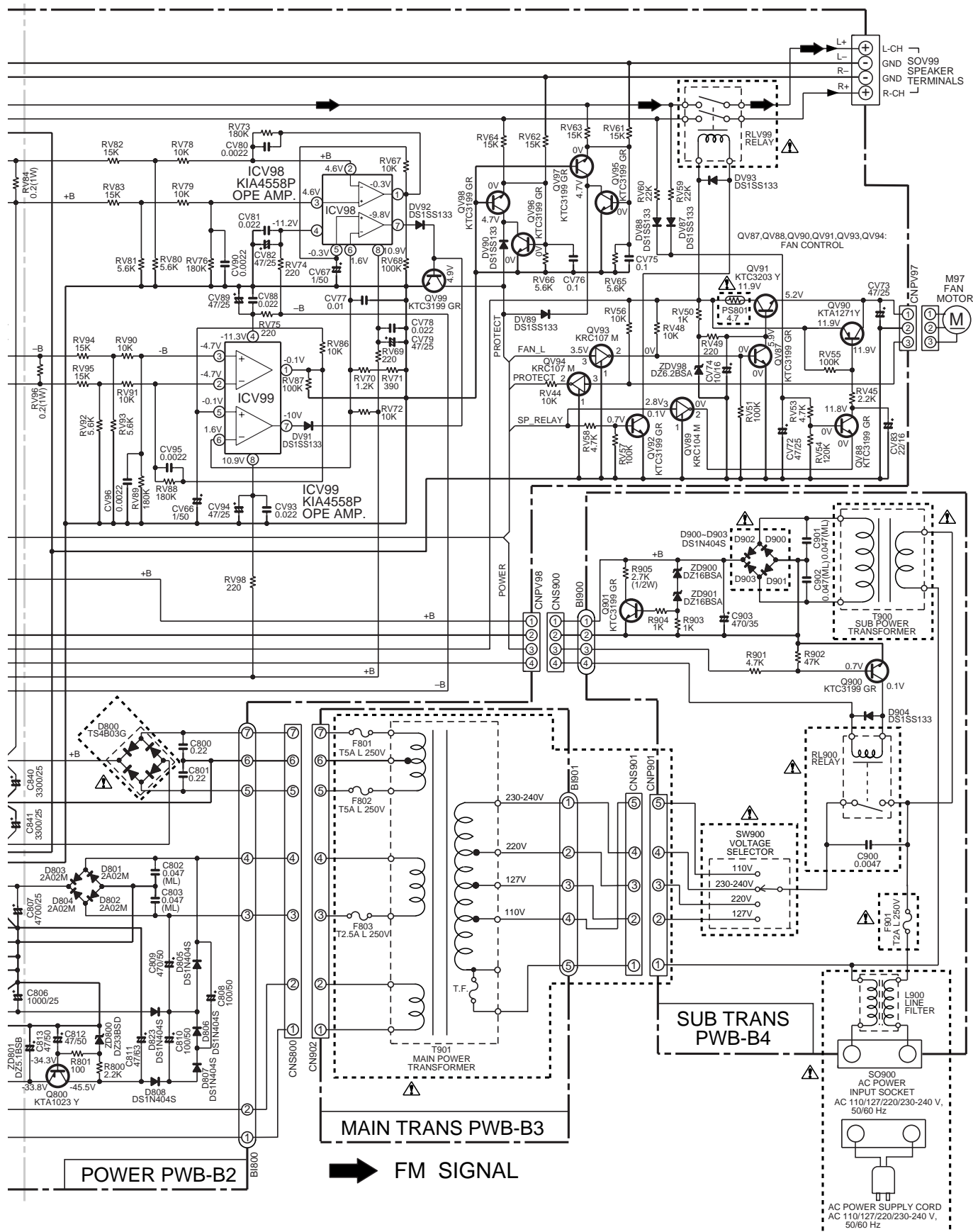


Figure 49 SCHEMATIC DIAGRAM (10/14)

- The numbers 1 to 12 are waveform numbers shown in page 67.
- NOTES ON SCHEMATIC DIAGRAM can be found on page 35.

Figure 50 SCHEMATIC DIAGRAM (11/14)

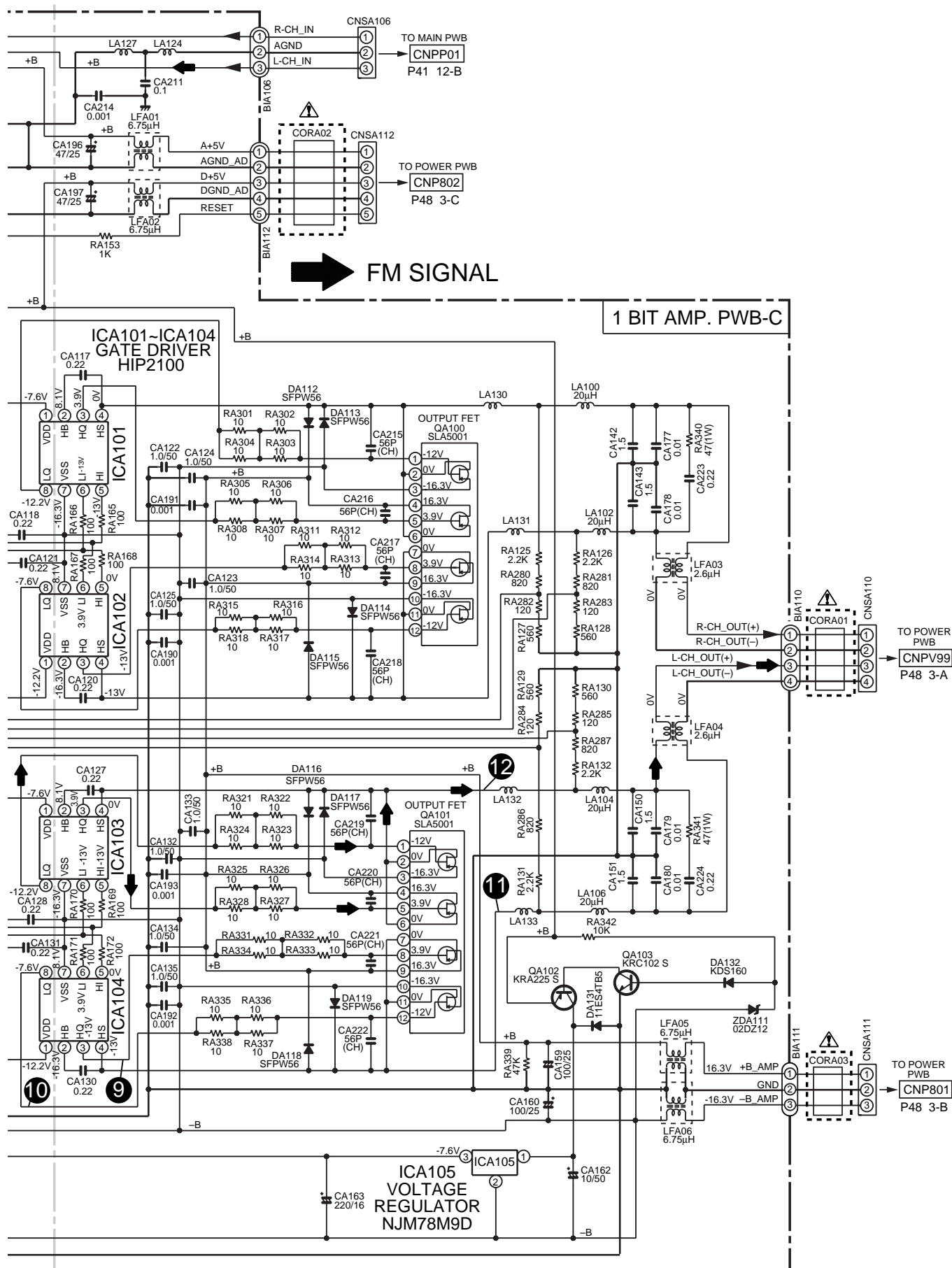


Figure 51 SCHEMATIC DIAGRAM (12/14)

- 52 -

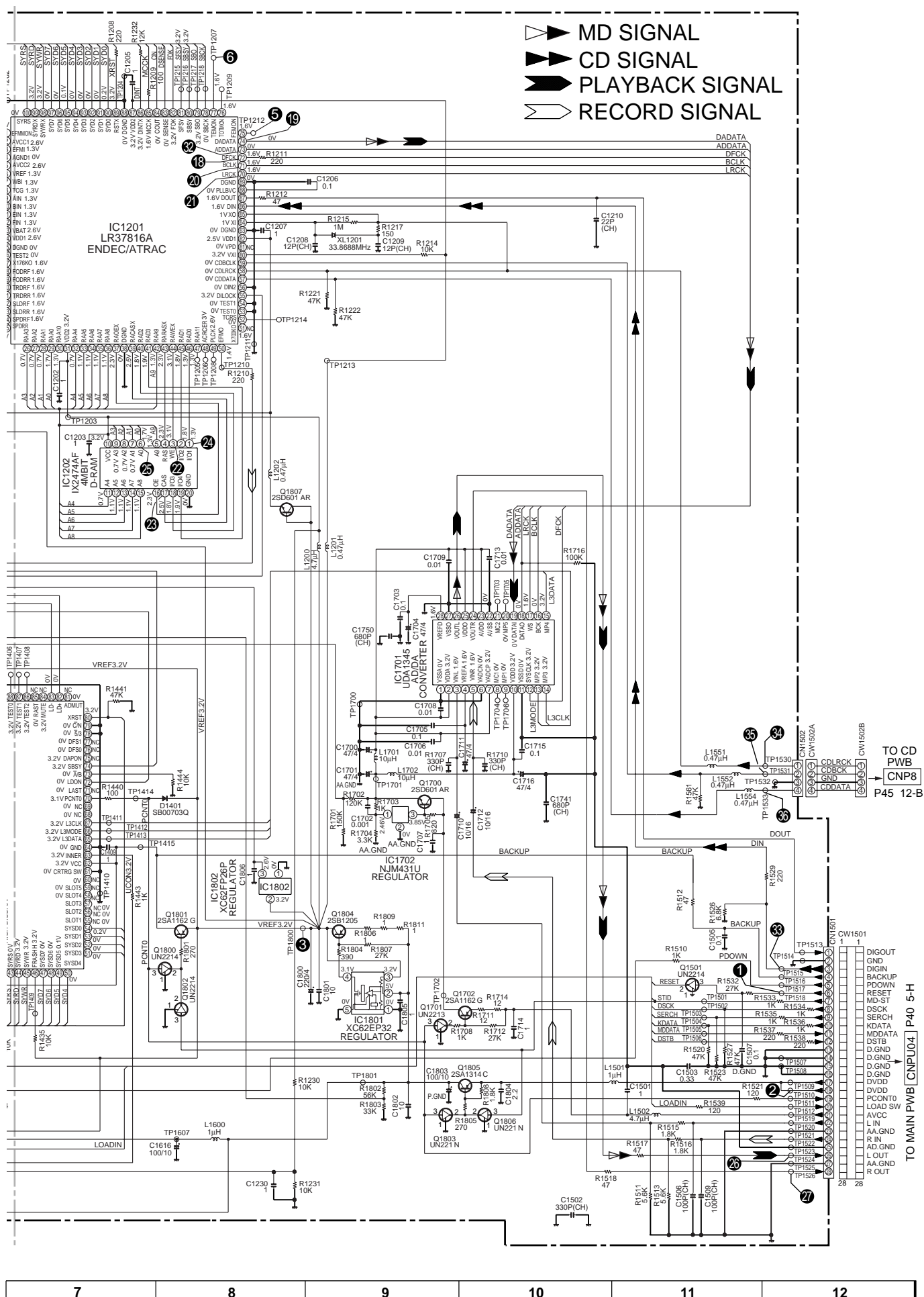


Figure 53 SCHEMATIC DIAGRAM (14/14)

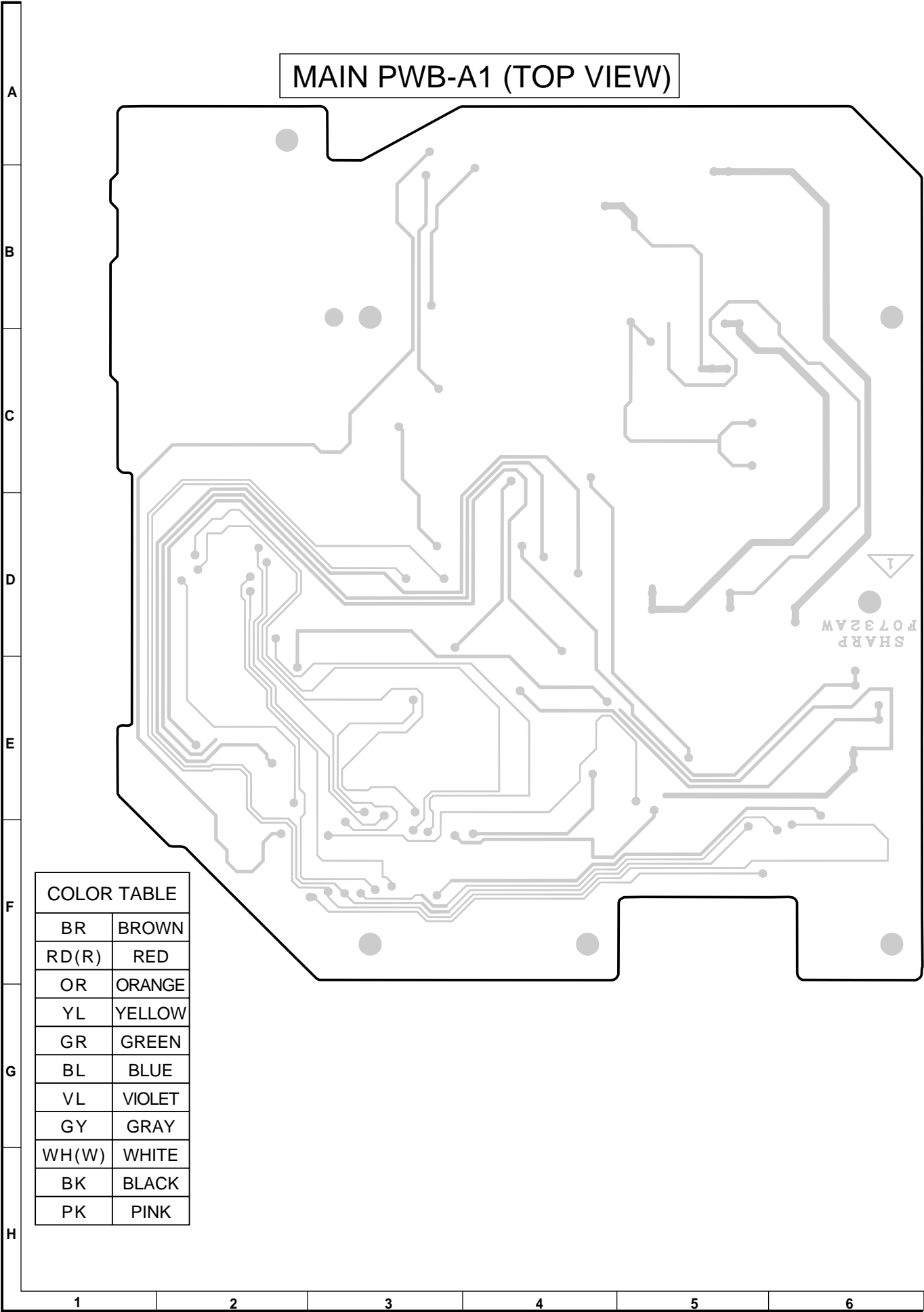


Figure 54 WIRING SIDE OF P.W.BOARD (1/13)

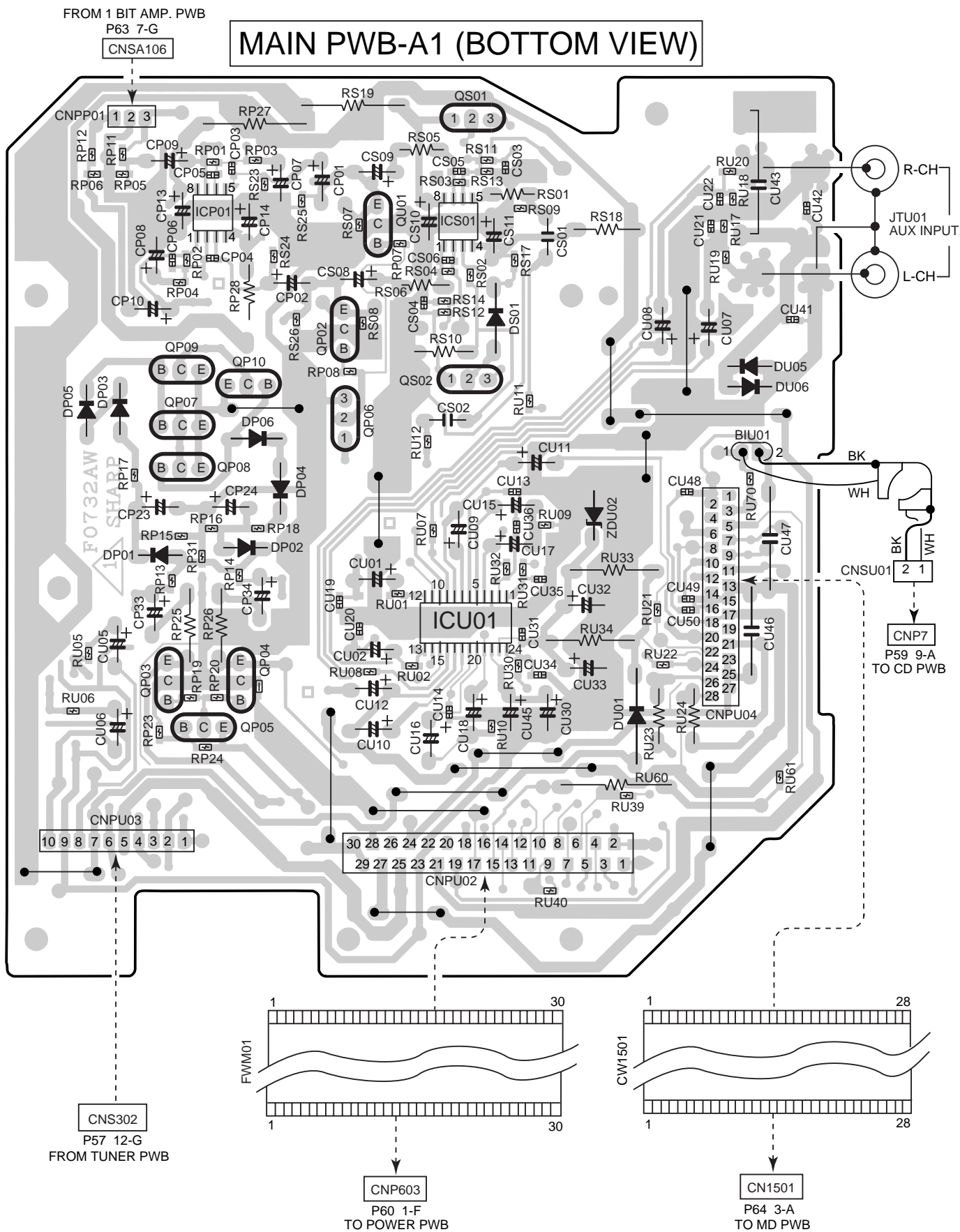


Figure 55 WIRING SIDE OF P.W.BOARD (2/13)

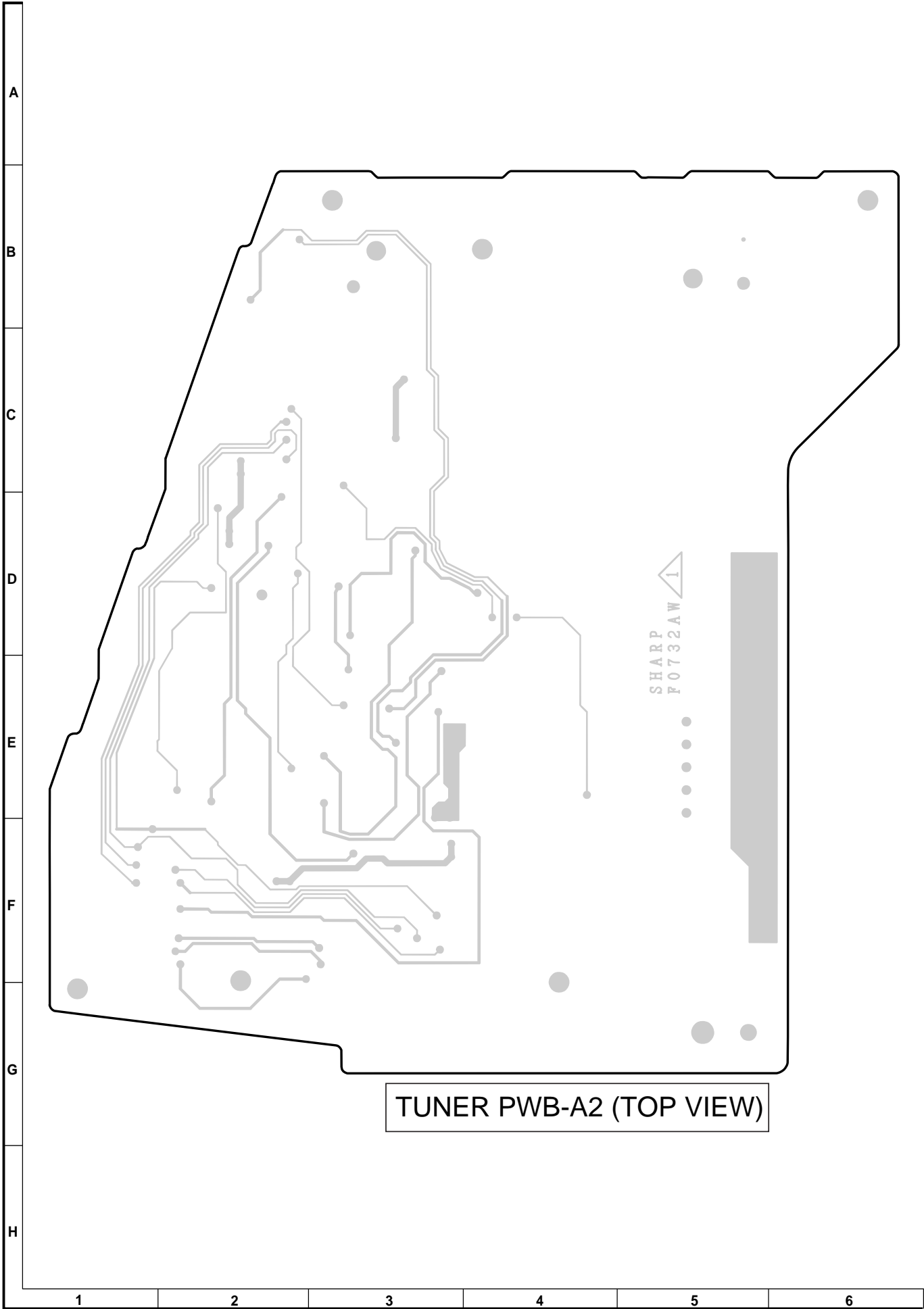


Figure 56 WIRING SIDE OF P.W.BOARD (3/13)

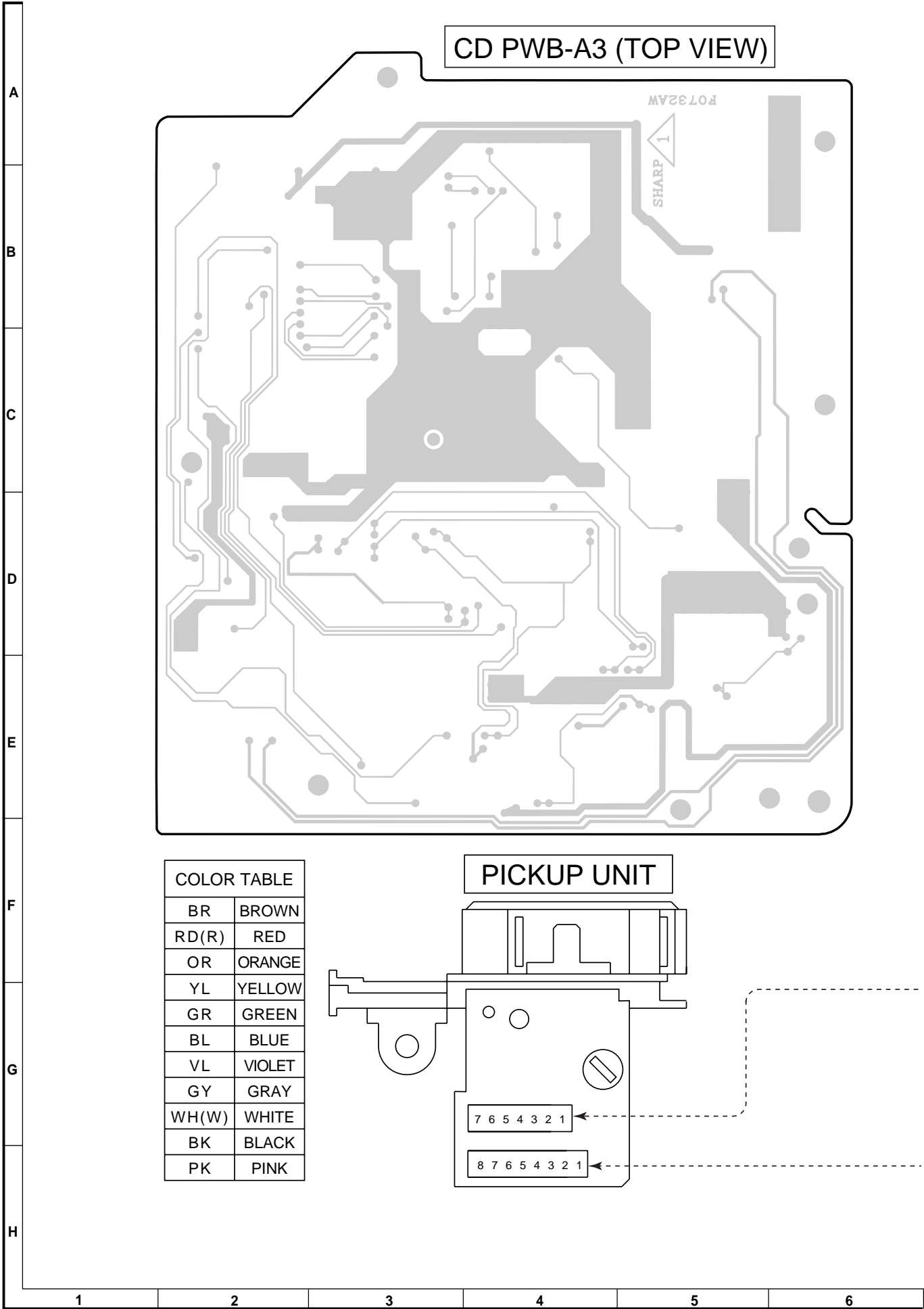
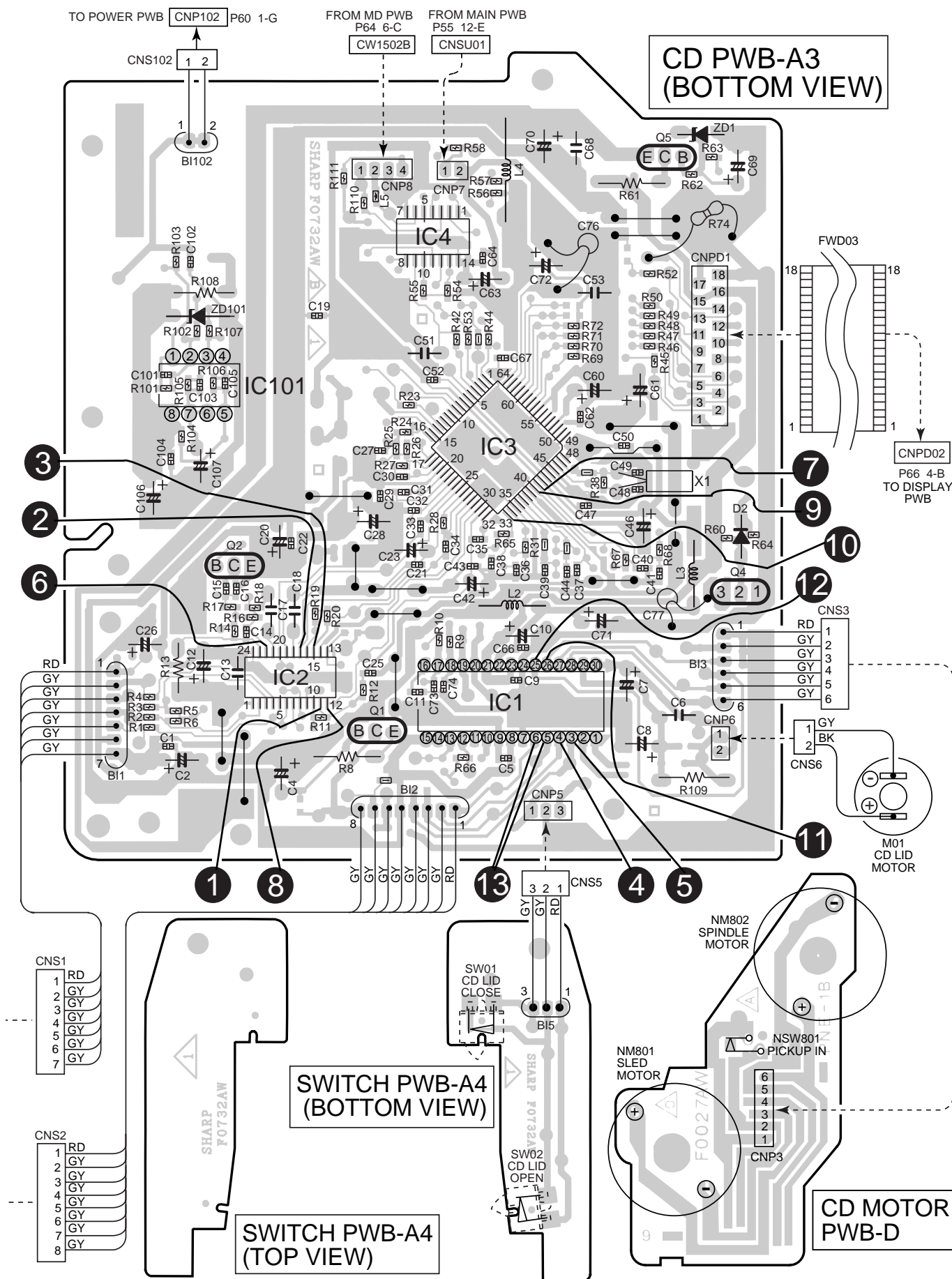


Figure 58 WIRING SIDE OF P.W.BOARD (5/13)



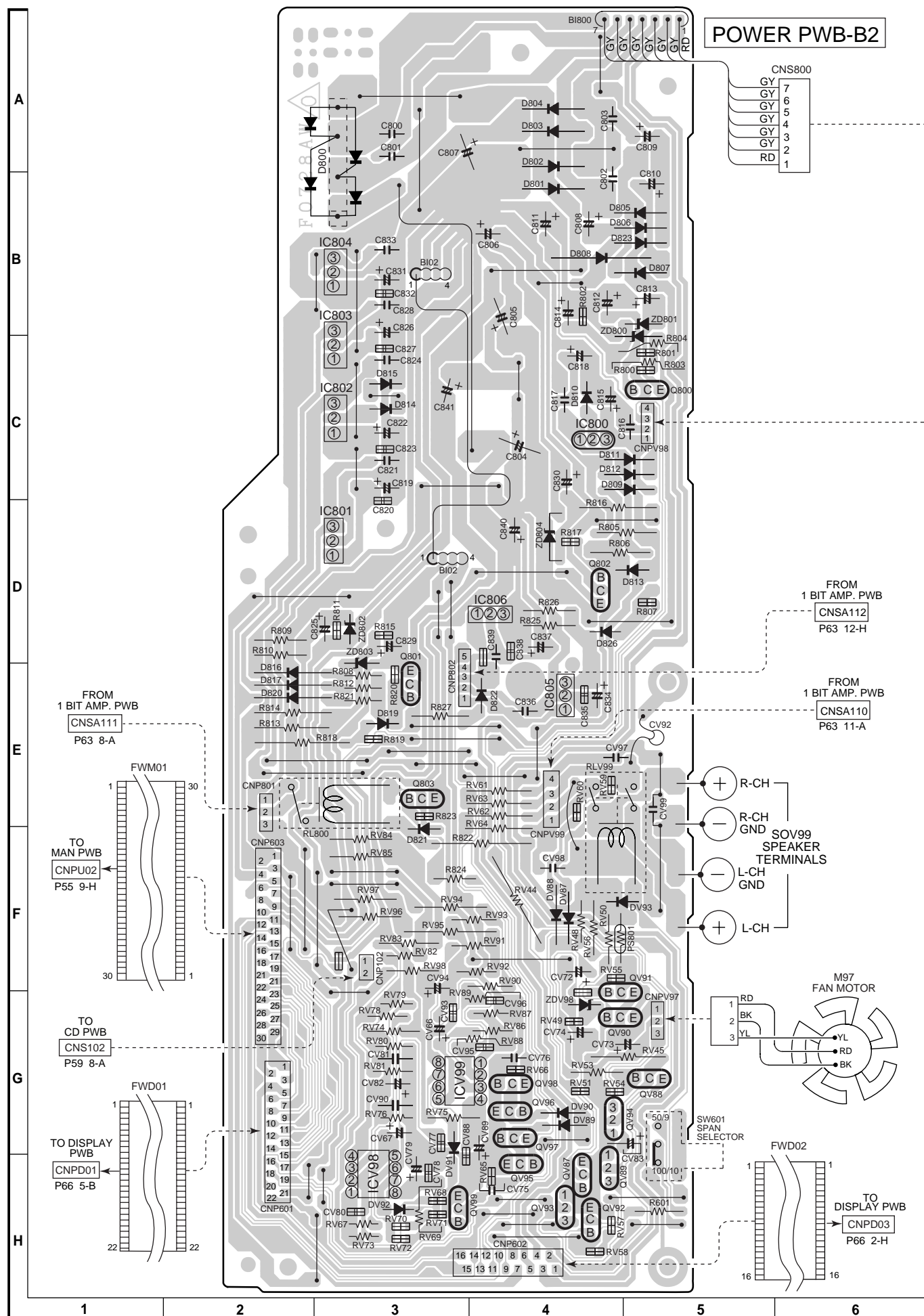
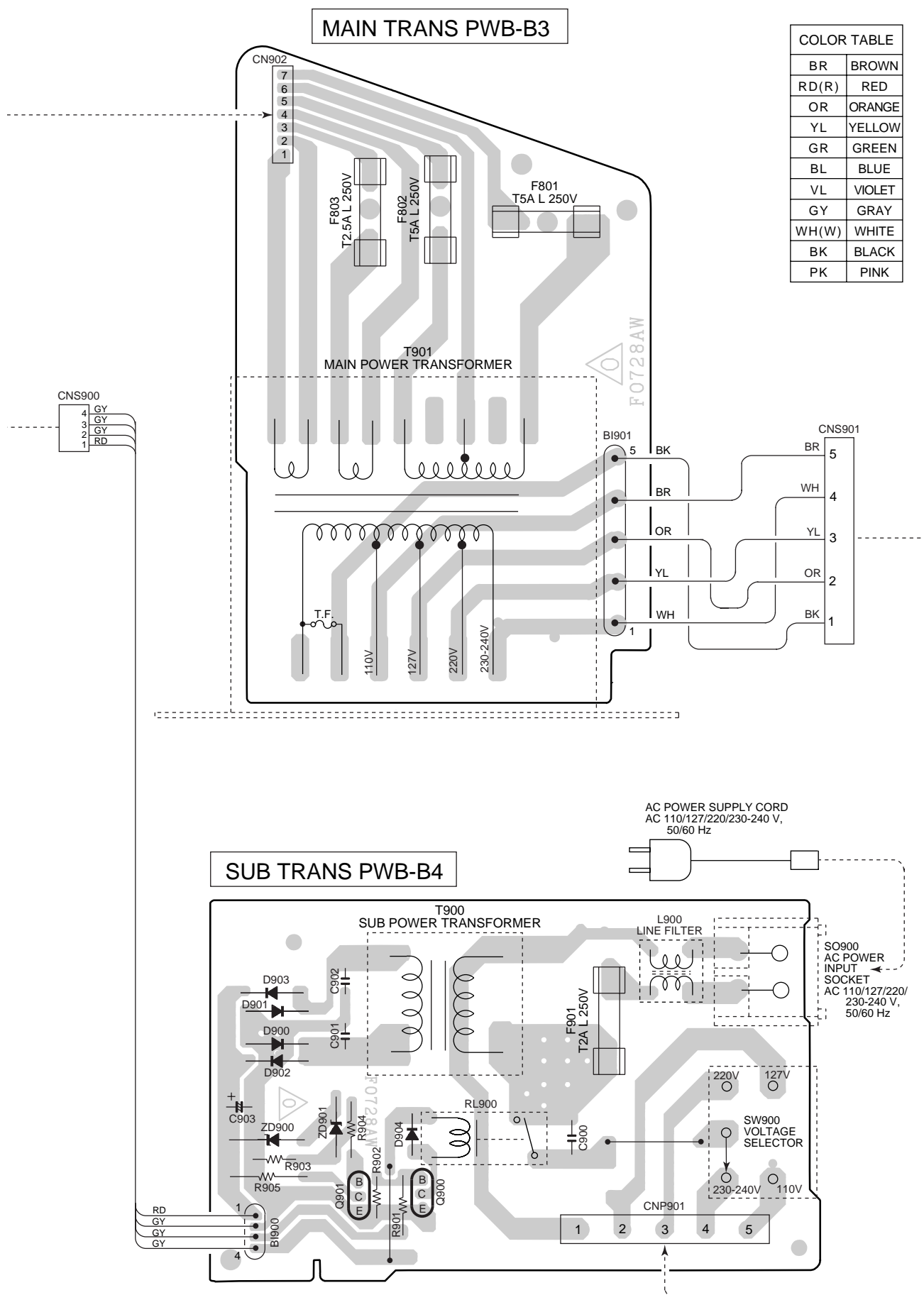


Figure 60 WIRING SIDE OF P.W.BOARD (7/13)



7	8	9	10	11	12
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Figure 61 WIRING SIDE OF P.W.BOARD (8/13)

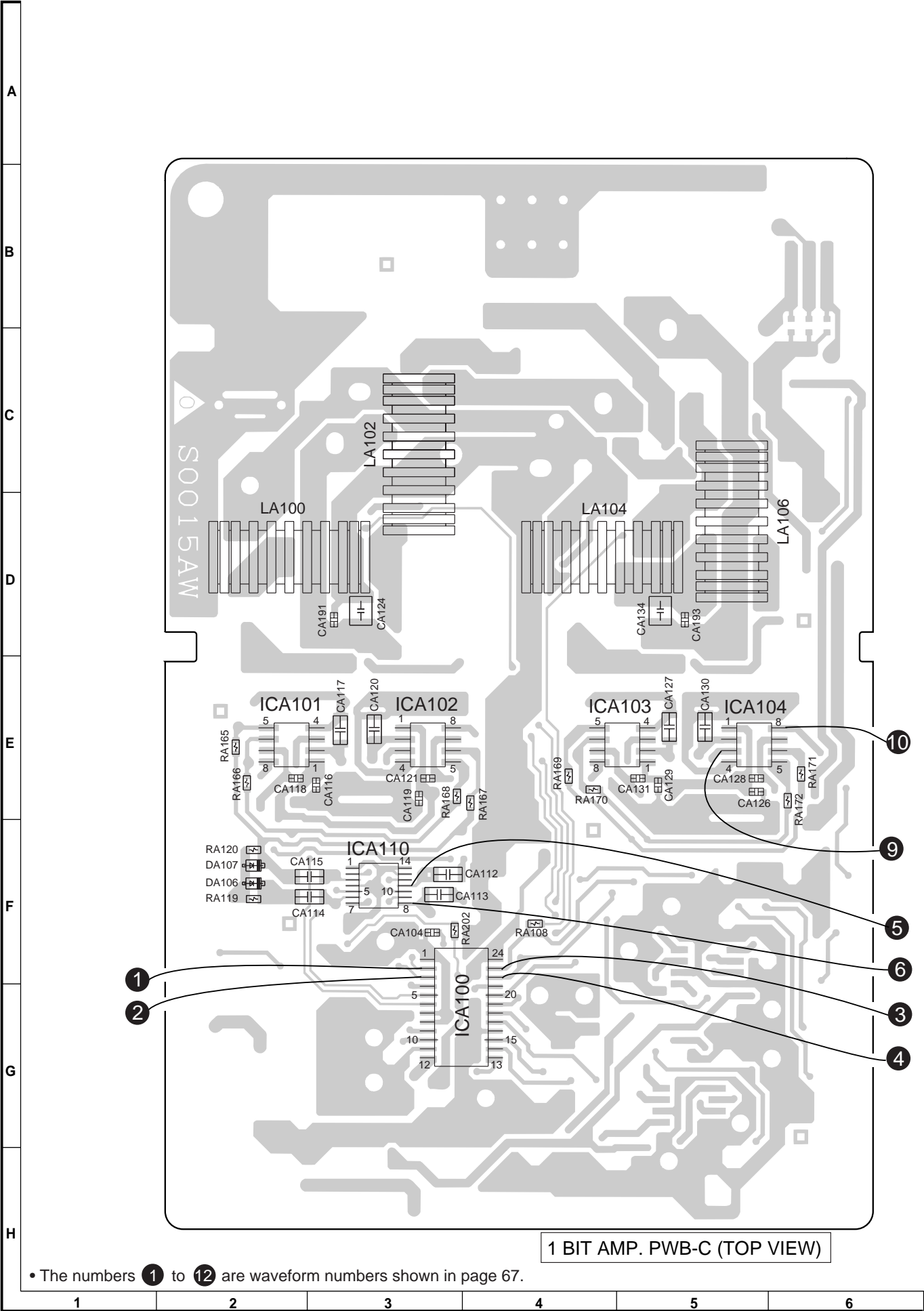


Figure 62 WIRING SIDE OF P.W.BOARD (9/13)

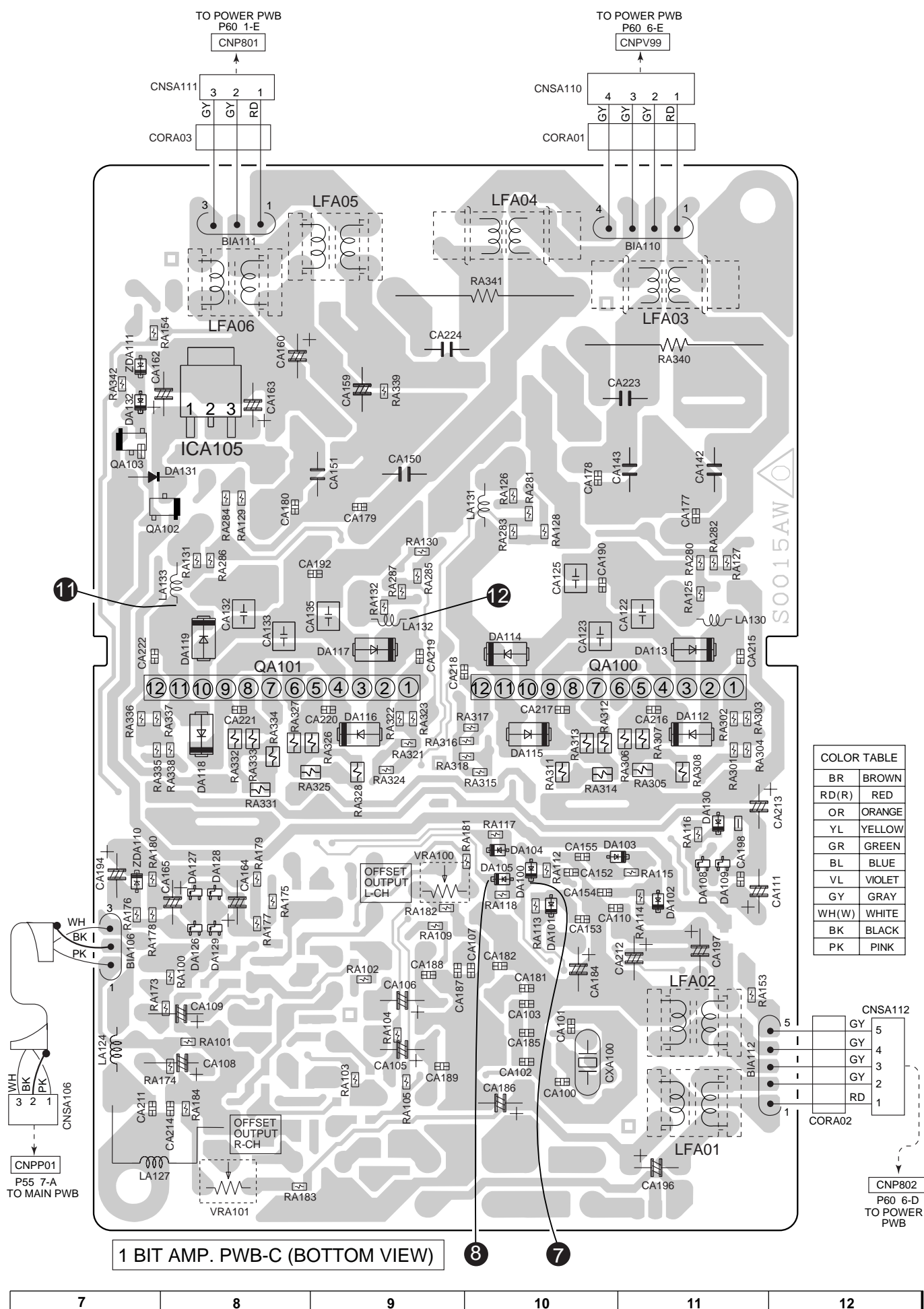


Figure 63 WIRING SIDE OF P.W.BOARD (10/13)

- 64 -

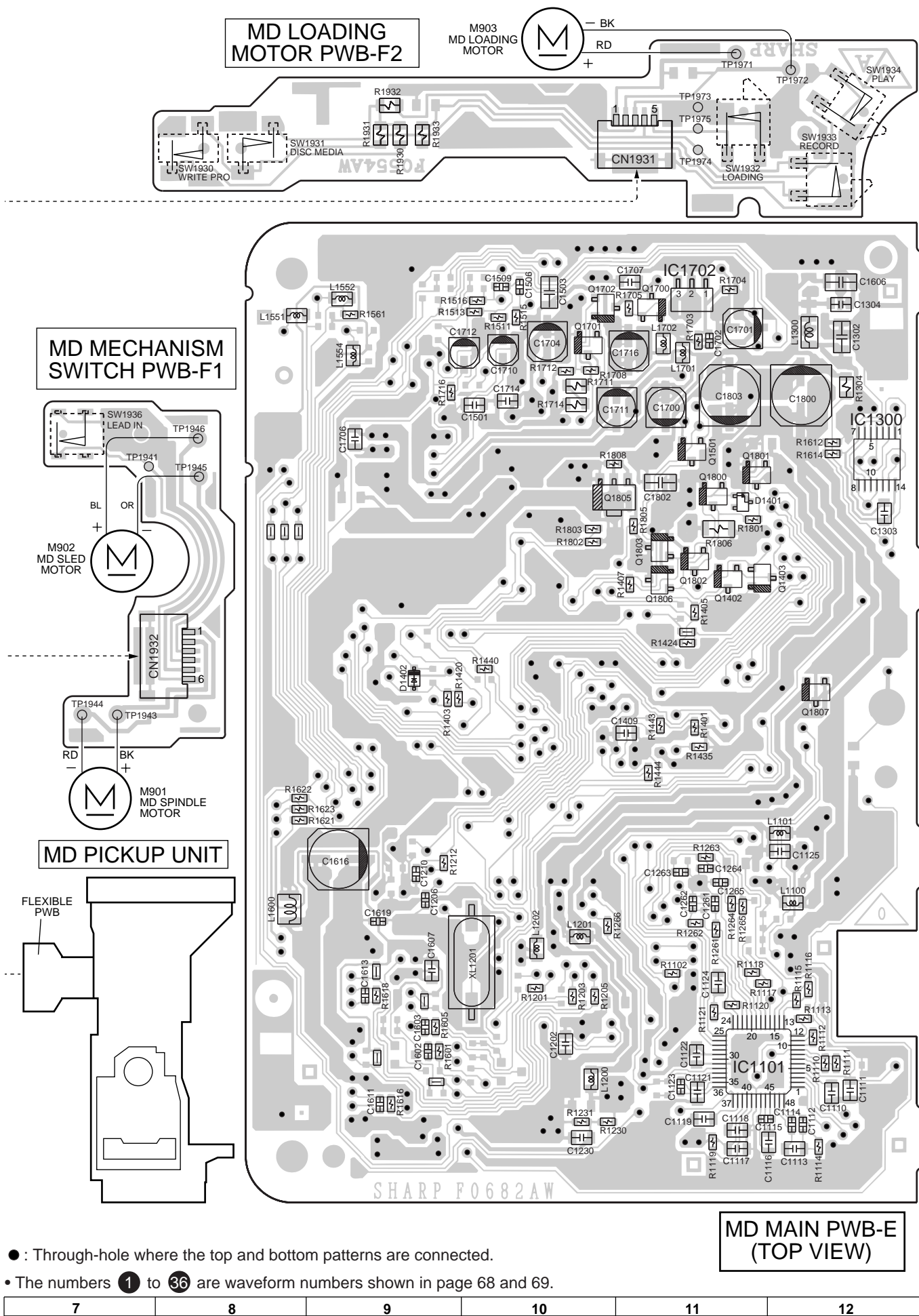


Figure 65 WIRING SIDE OF P.W.BOARD (12/13)

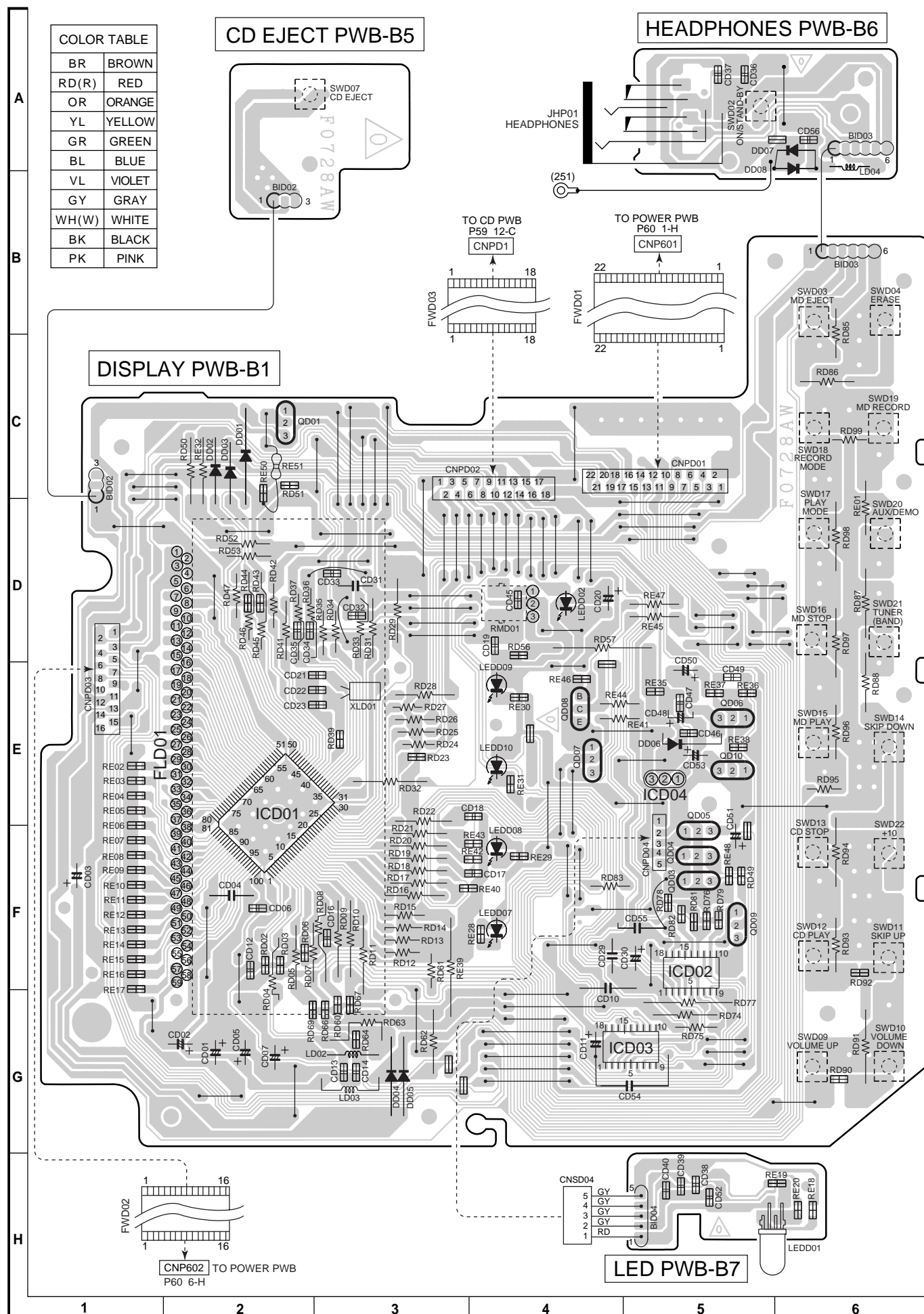
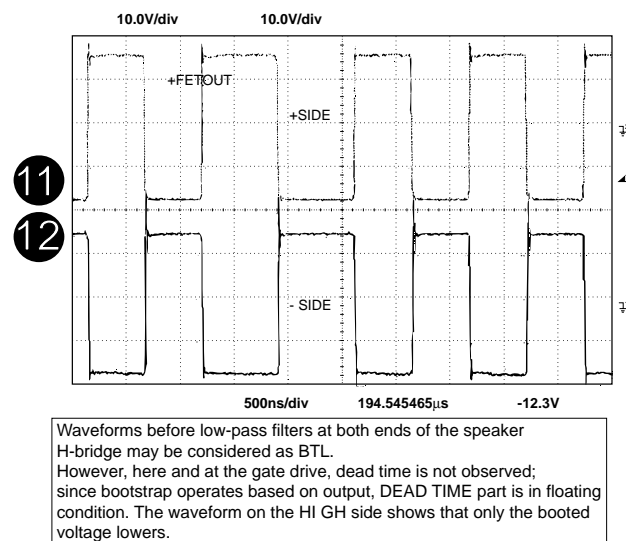
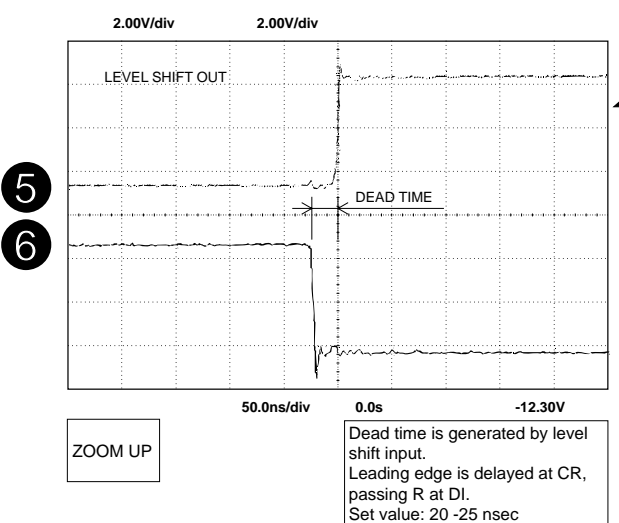
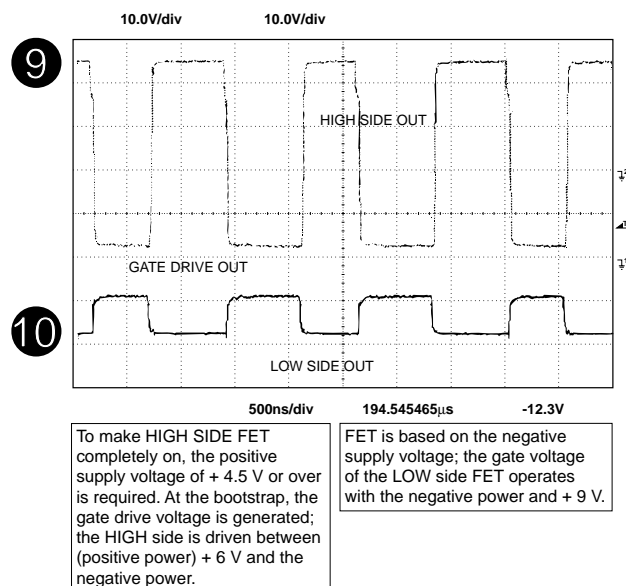
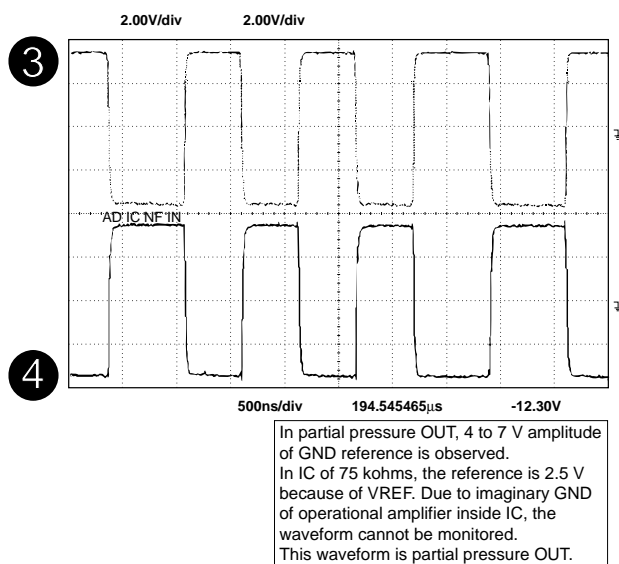
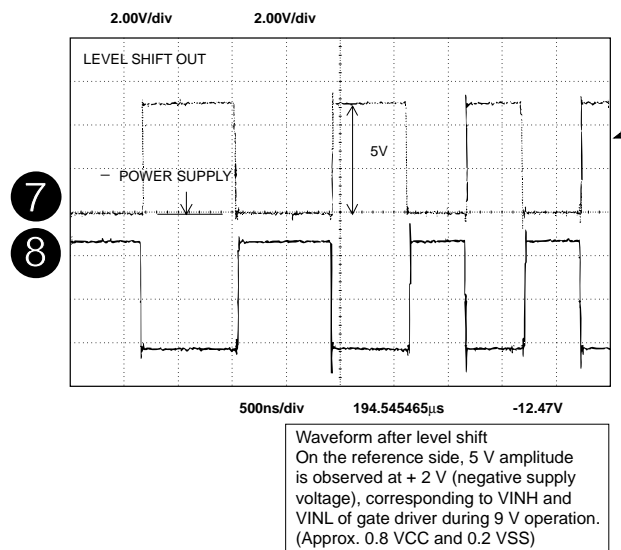
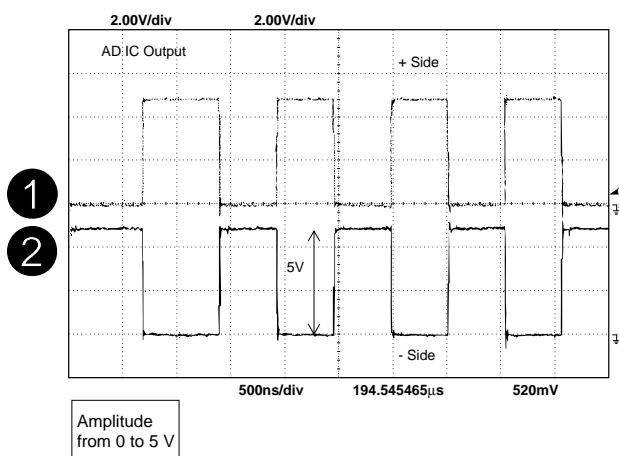


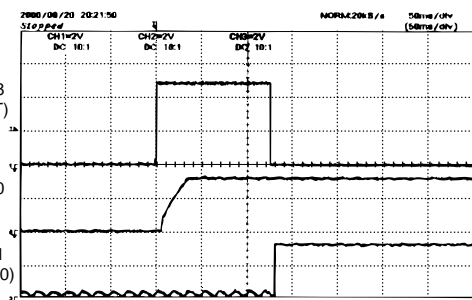
Figure 66 WIRING SIDE OF P.W.BOARD (13/13)

WAVEFORMS OF 1-BIT AMP. CIRCUIT

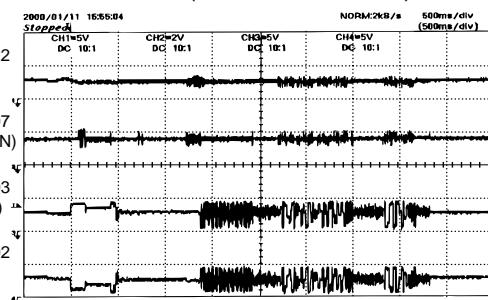


WAVEFORMS OF MD CIRCUIT

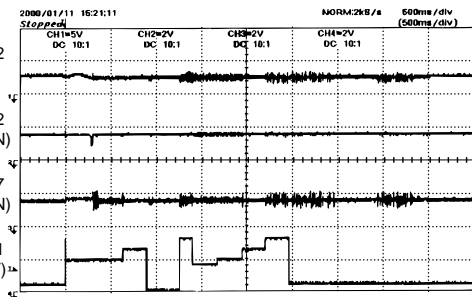
POWER ON

① TP1518
(RESET)② TP1800
(3.2V)③ TP1511
(PCONTO)

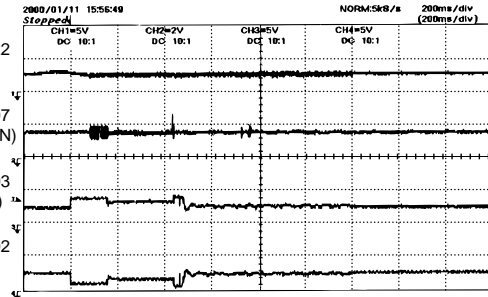
TOC READ (Low reflection disc)

④ TP1122
(F+)⑥ TP1207
(TEMON)⑩ TP1603
(SP+)⑪ TP1602
(SP-)

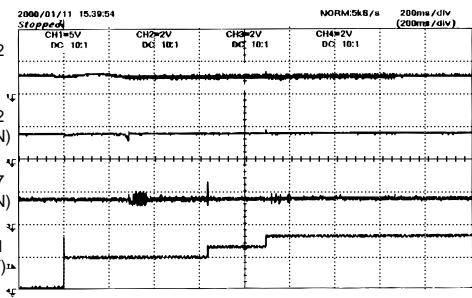
TOC READ (Low reflection disc)

④ TP1122
(F+)⑤ TP1212
(FEMON)⑥ TP1207
(TEMON)⑦ TP1451
(ADJUST)

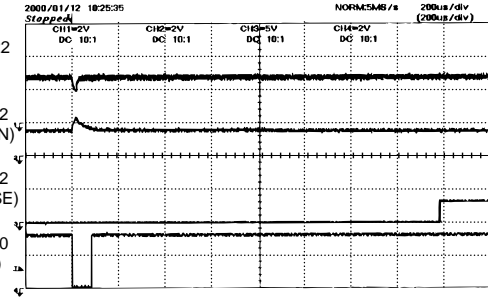
TOC READ (High reflection disc)

④ TP1122
(F+)⑥ TP1207
(TEMON)⑩ TP1603
(SP+)⑪ TP1602
(SP-)

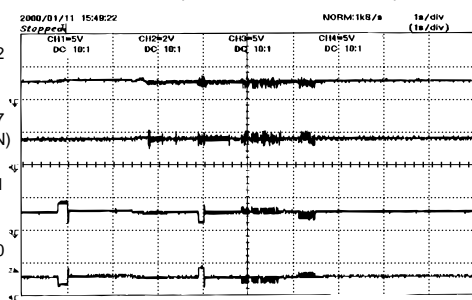
TOC READ (High reflection disc)

④ TP1122
(F+)⑤ TP1212
(FEMON)⑥ TP1207
(TEMON)⑦ TP1451
(ADJUST)

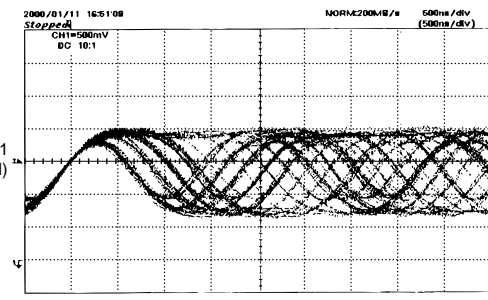
STOP ---> PLAY

④ TP1122
(F+)⑤ TP1212
(FEMON)⑫ TP1422
(DSENSE)⑬ TP1420
(FOK)

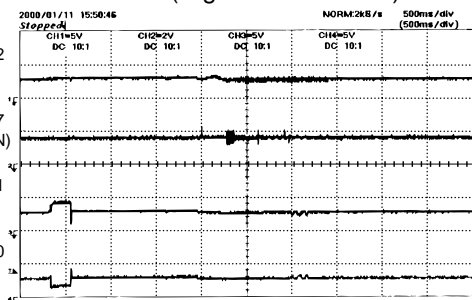
TOC READ (Low reflection disc)

④ TP1122
(F+)⑥ TP1207
(TEMON)⑧ TP1601
(SLD+)⑨ TP1600
(SLD-)

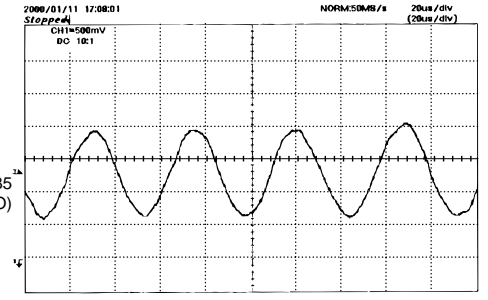
PLAY (Low reflection disc)

⑭ TP1201
(EFMMON)

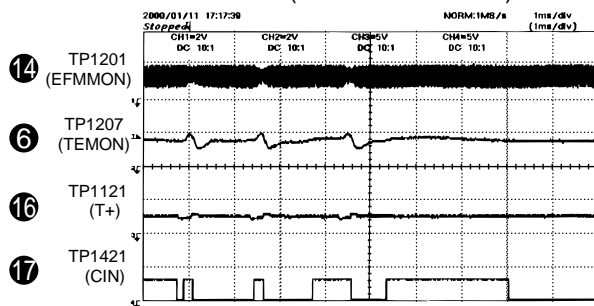
TOC READ (High reflection disc)

④ TP1122
(F+)⑥ TP1207
(TEMON)⑧ TP1601
(SLD+)⑨ TP1600
(SLD-)

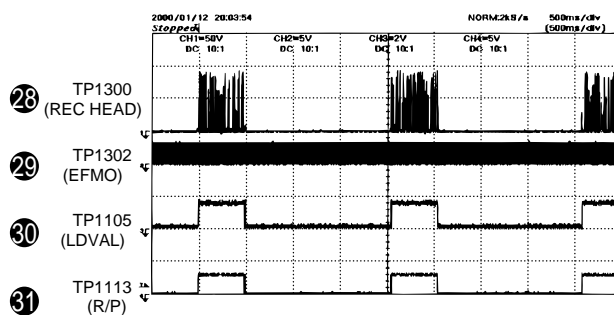
PLAY (Low reflection disc)

⑮ TP1135
(ADIPO)

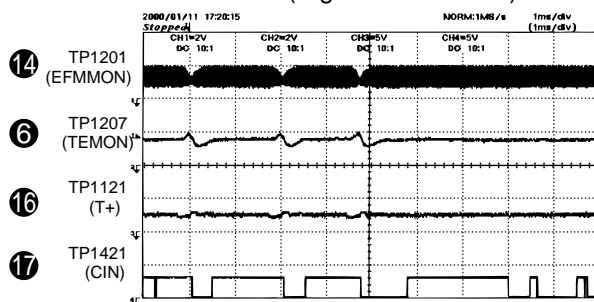
PLAY (Low reflection disc)



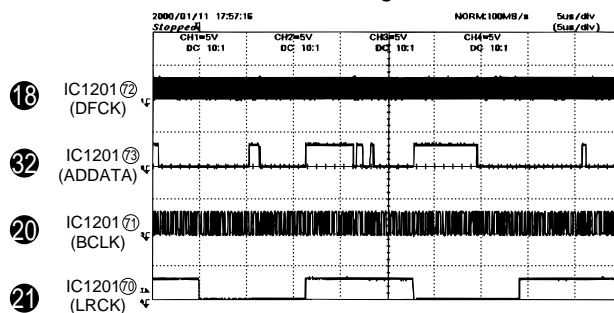
REC



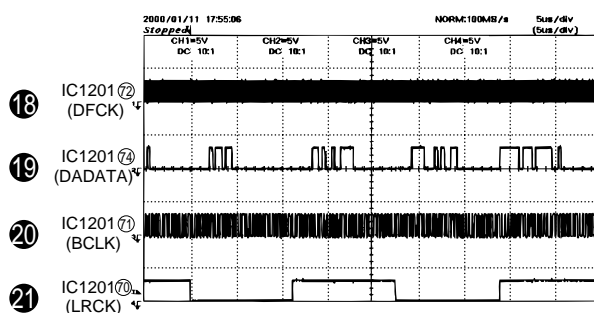
PLAY (High reflection disc)



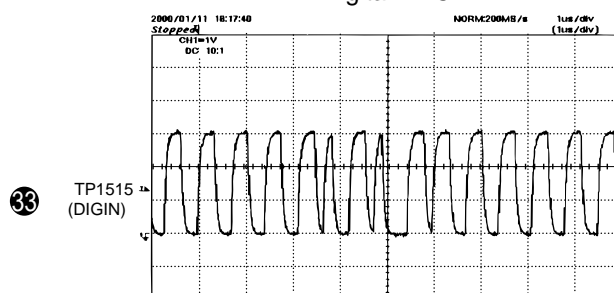
Analog REC



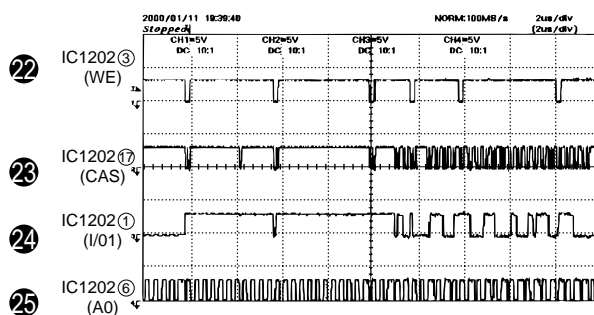
PLAY



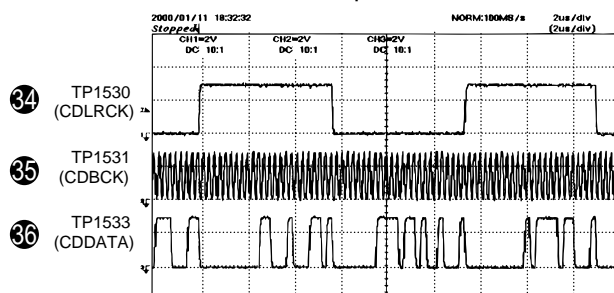
Digital REC



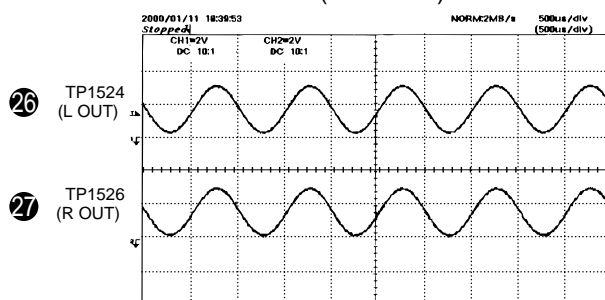
PLAY



Double speed REC

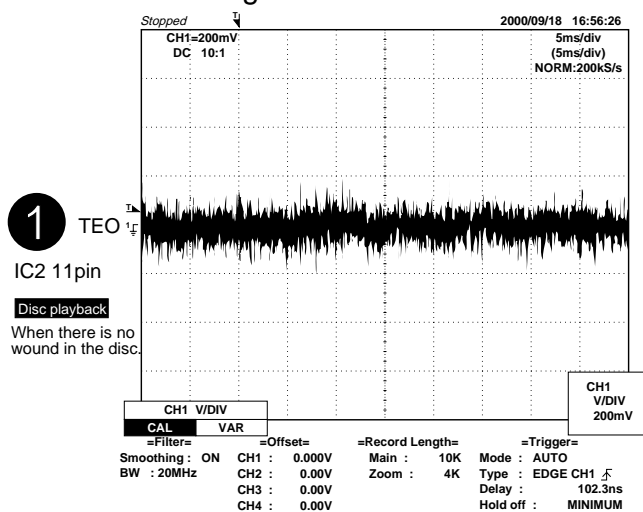


PLAY(1kHz 0dB)

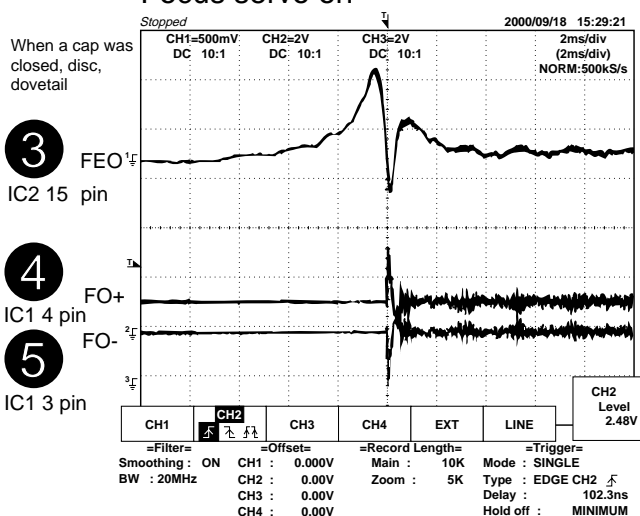


WAVEFORMS OF CD CIRCUIT

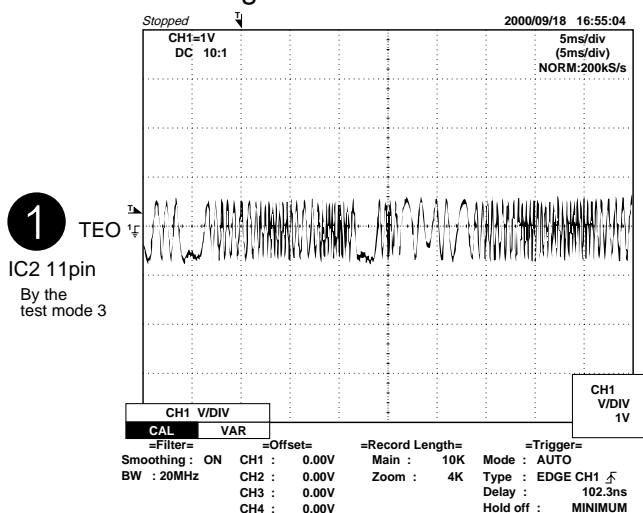
Tracking error



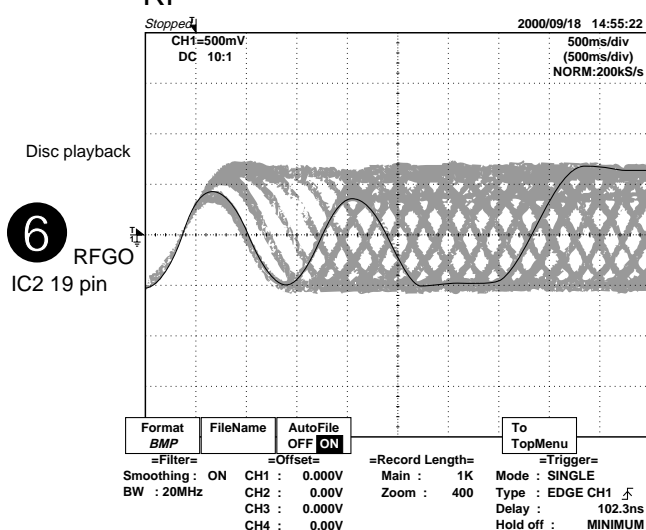
Focus servo on



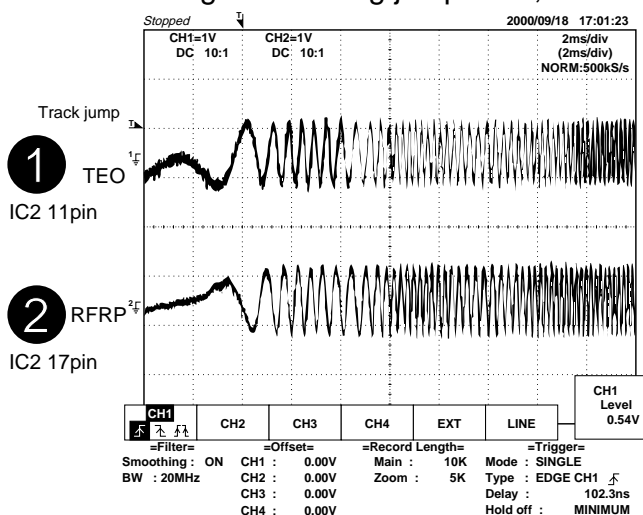
Tracking



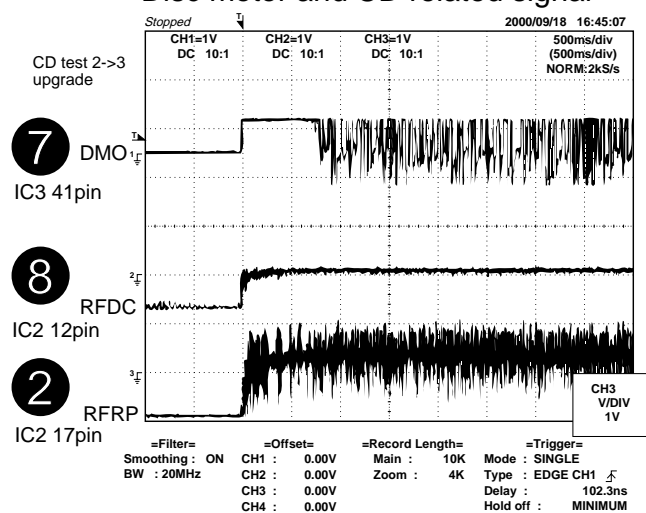
RF



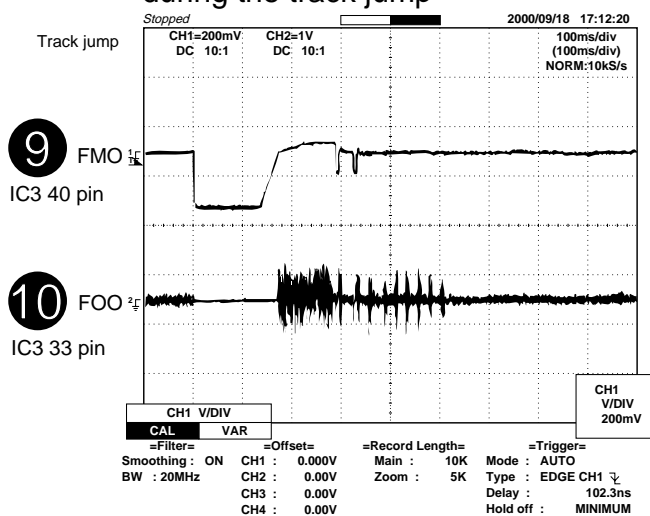
During the tracking jump TEO, RFRP



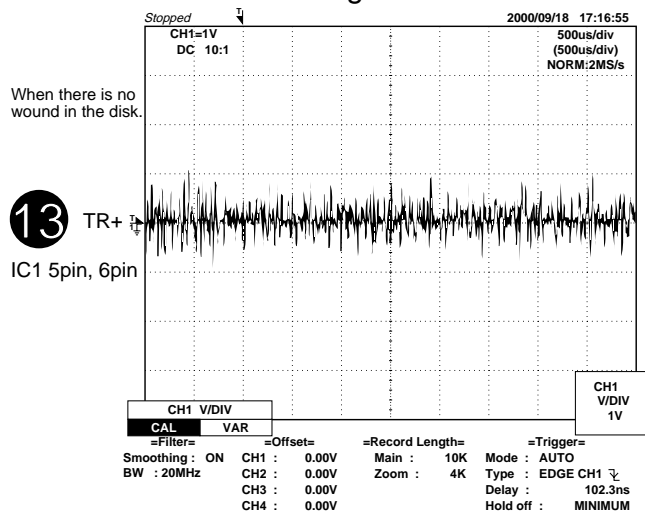
Disc motor and CD related signal



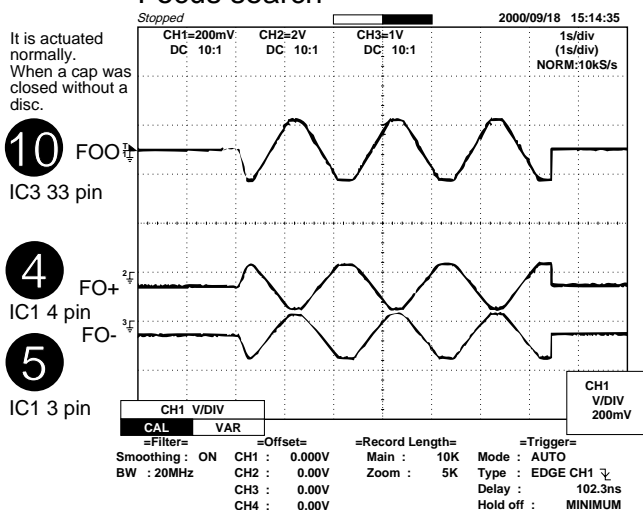
Feed motor and tracking output during the track jump



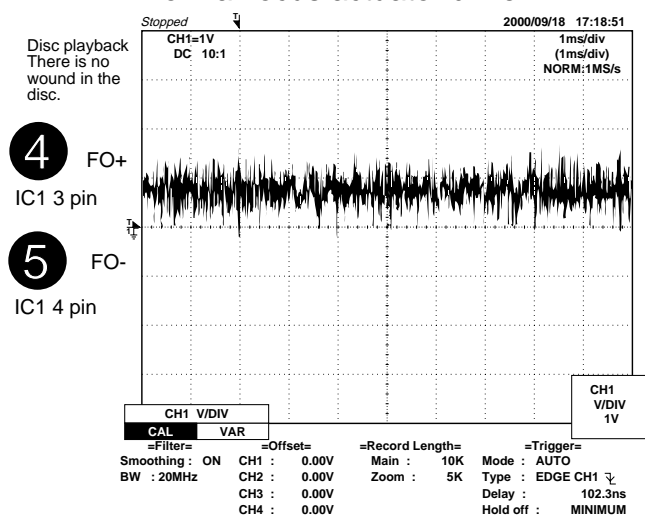
Normal tracking actuator drive



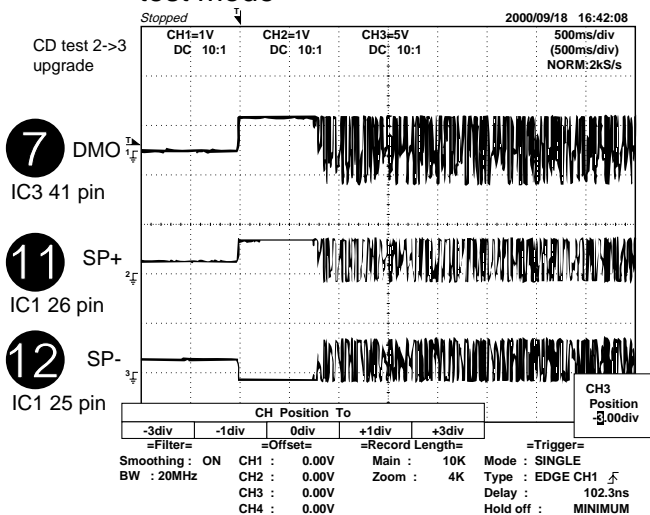
Focus search



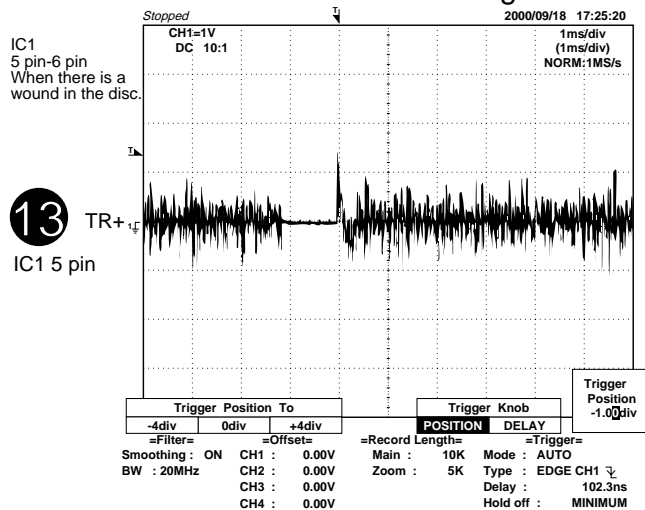
Normal focus actuator drive



Disc motor output while in the test mode



Actuator drive when damaged



TROUBLESHOOTING

CD SECTION

When the CD does not function

When the CD section does not operate when the objective lens of the optical pickup is dirty, this section may not operate. Clean the objective lens, and check the playback operation. When this section does not operate even after the above step is taken, check the following items.

Remove the cabinet and follow the trouble shooting instructions.

"Track skipping and/or no TOC (Table Of Contents) may be caused by build up of dust other foreign matter on the laser pickup lens. Before attempting any adjustment make certain that the lens is clean. If not, clean it as mentioned below."

Turn off the power, and wipe the lens softly using a cleaning paper moistened with commercially available cleaning solution so as not to damage it.

Be careful not to touch the lens with bare hands.

Dust gradually accumulates on the objective lens during use, and it may degrade performance. To avoid this problem, use a cleaning disc designed for CD optical pickup lenses.

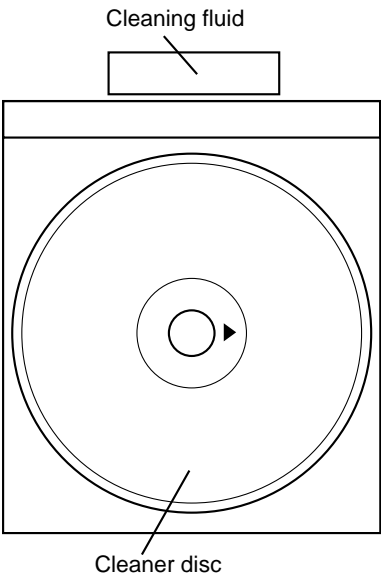
		Parts code
1.	CD optical pickup Lens cleaner disc	UDSKA0004AFZZ

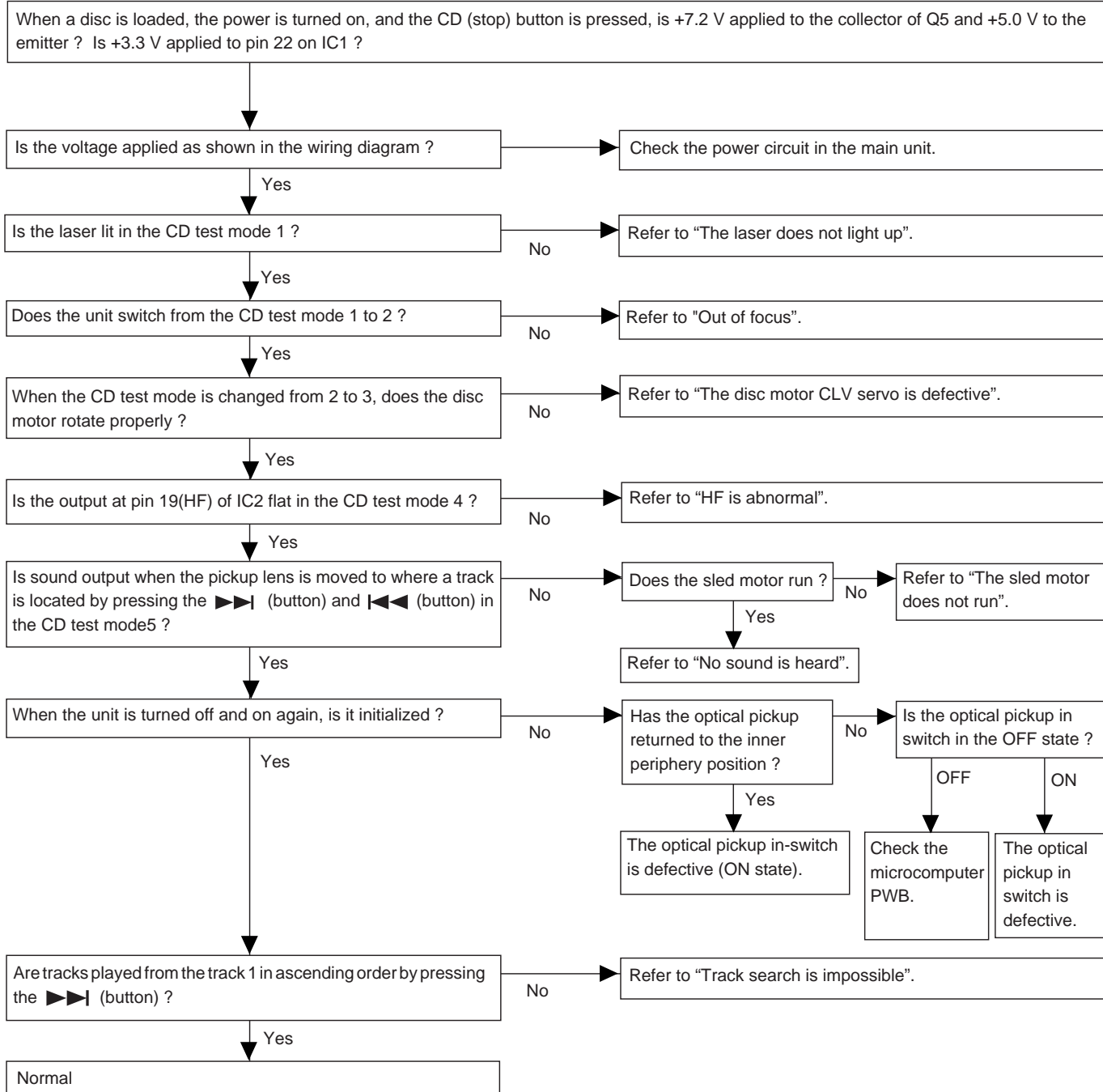
HOW TO USE

1. Using the brush in the cleaner cap, apply 1 or 2 drops of the cleaning fluid to the brush on the CD cleaner disc which has the mark next to it.
2. Place the CD cleaner disc onto the CD disc tray with the brush side down, then press the play button.
3. You will hear music for about 20 seconds and the CD player will automatically stop. If it continuous to turn, press the stop button.

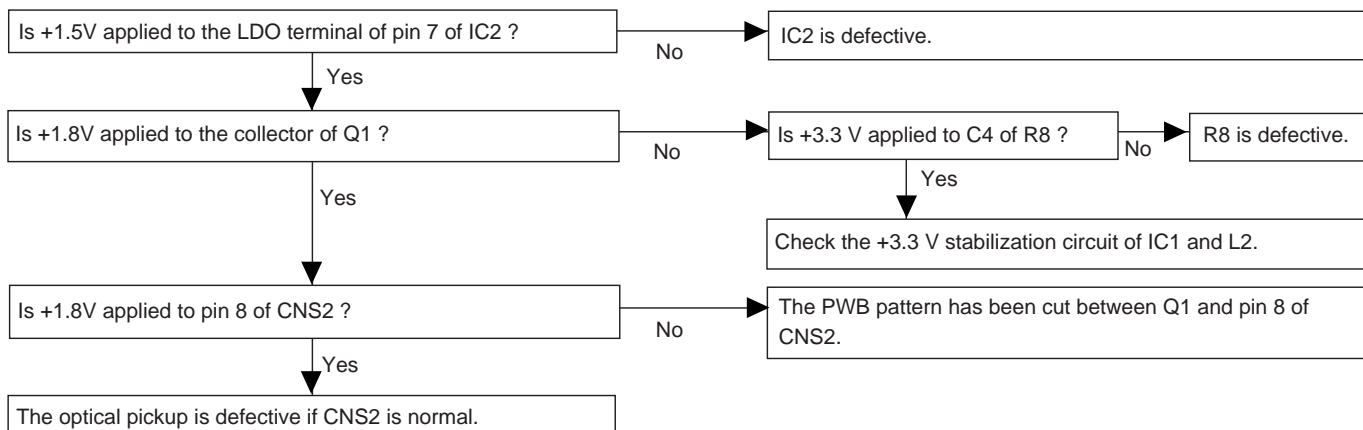
CAUTION

- The CD lens cleaner should be effective for 30-50 operations, however if the brushes become worn out earlier then please the cleaner disc.
- If the CD cleaner brushes become very wet then wipe off any excess fluid with a soft cloth.
- Do not drink the cleaner fluid or allow it to come in contact with the eyes. In the event of this happening then drink and / or rinse with clean water and seek medical advice.
- The CD cleaner disc must not be used on car CD players or on computer CD-ROM drives.
- All rights reserved. Unauthorized duplicating, broadcasting and renting this product is prohibited by law.



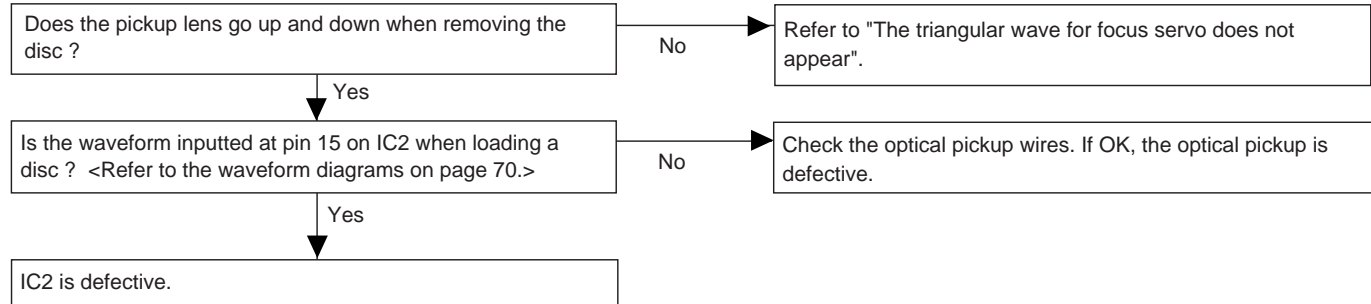


• The laser does not light up.

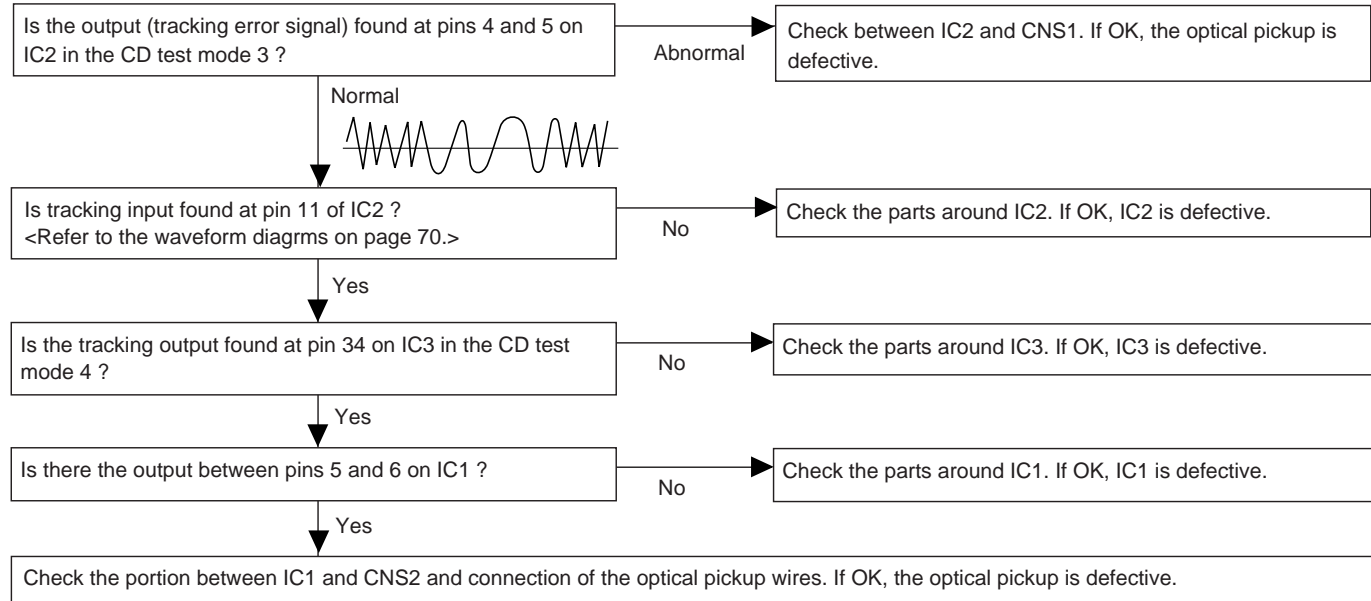


SD-CX1W

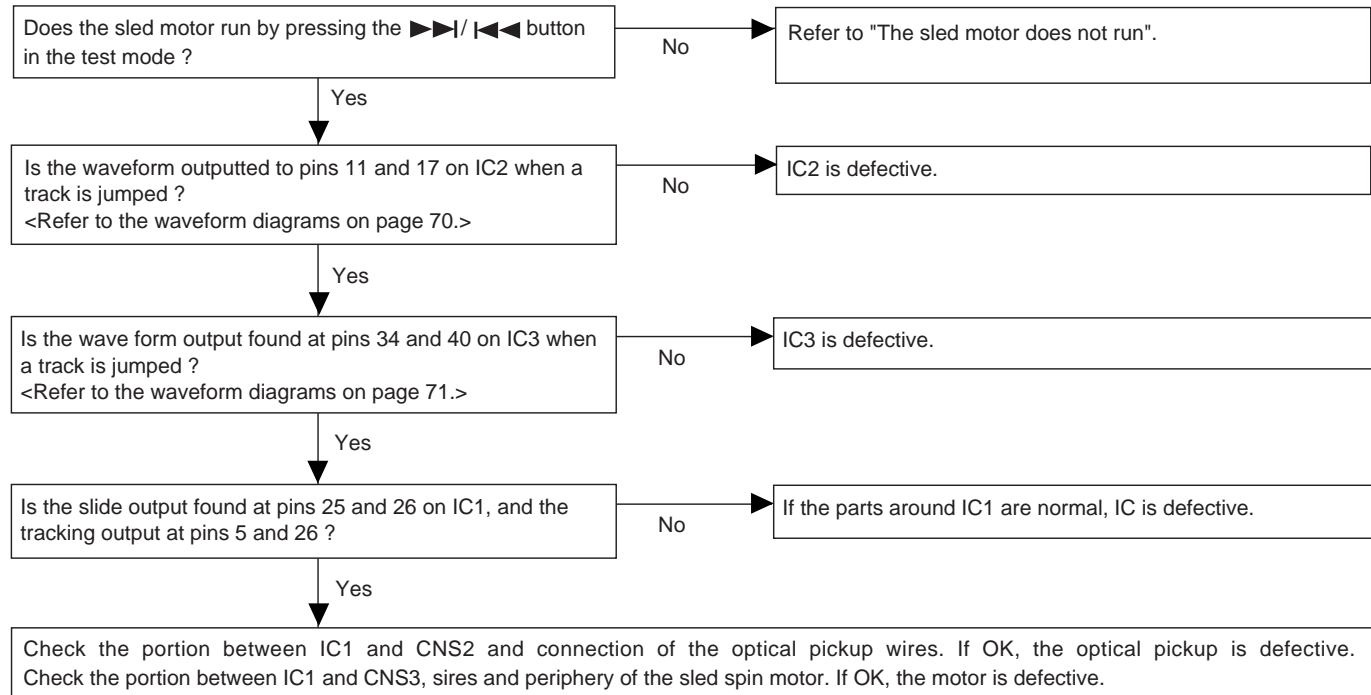
• Out of focus.



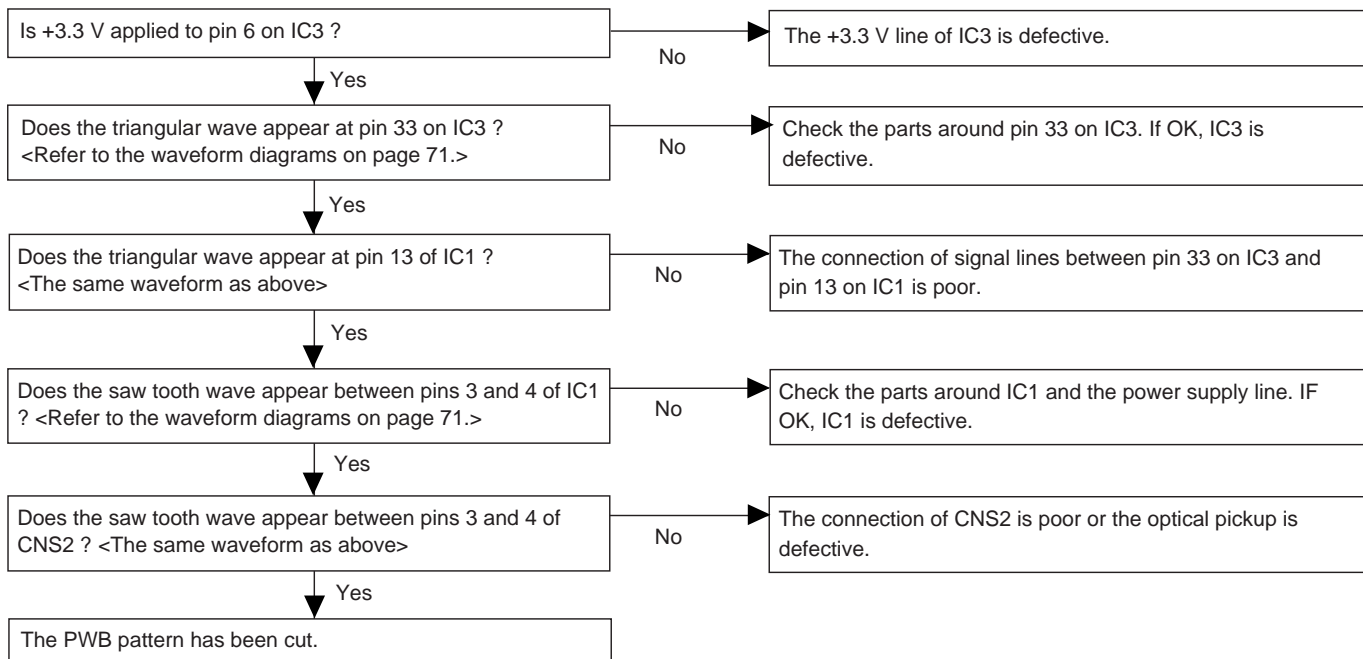
• HF is abnormal.



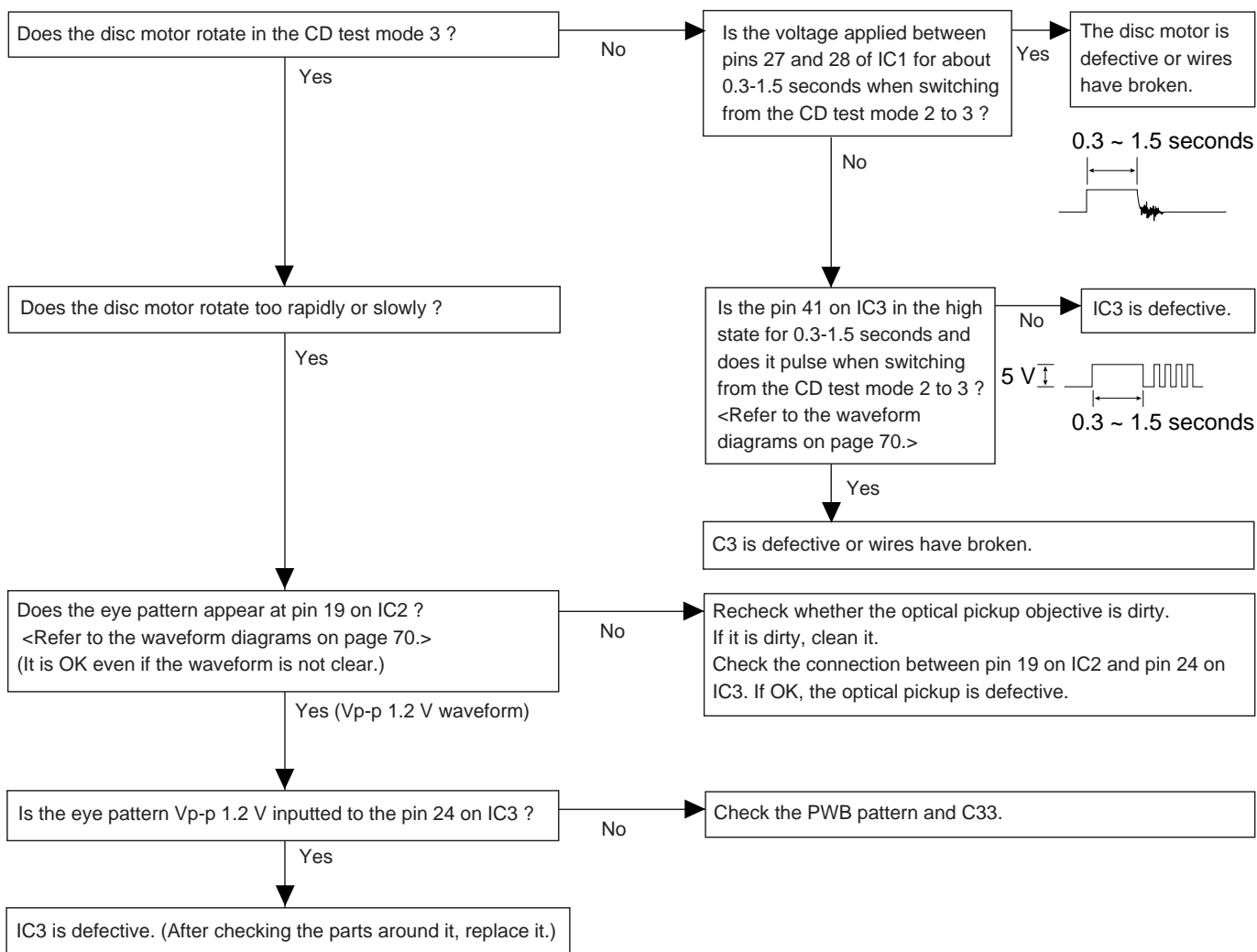
• Track search is impossible.



• The triangular wave for focus servo does not appear.

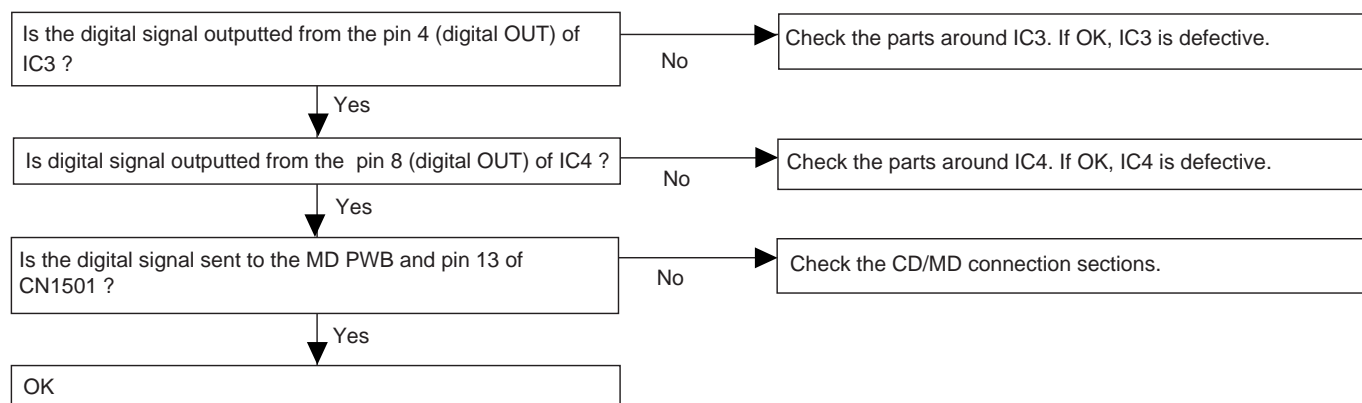


• The disc motor CLV servo is defective.

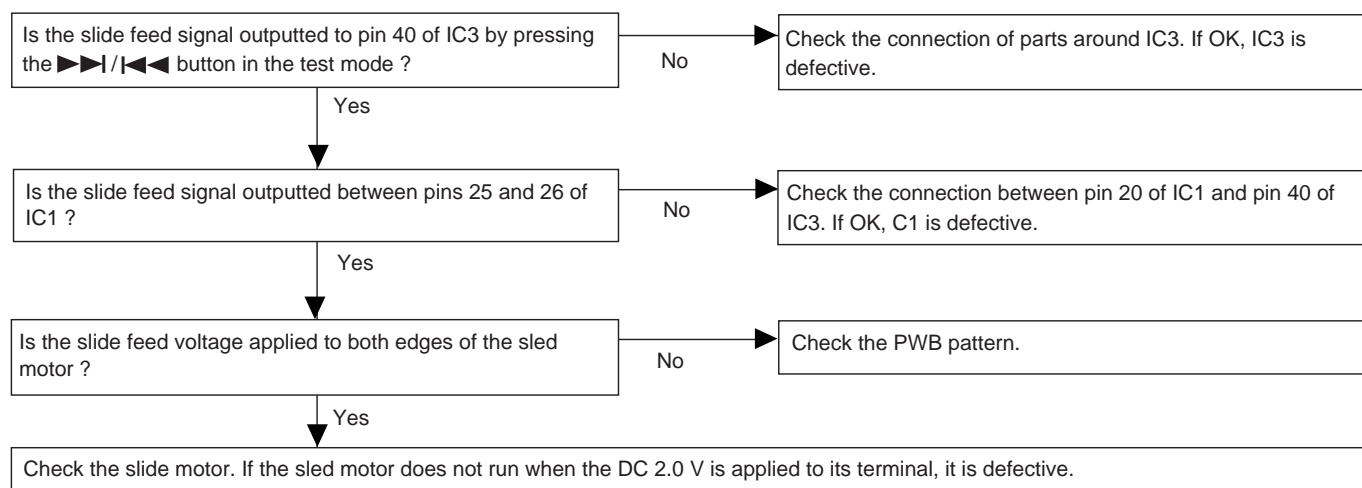


SD-CX1W

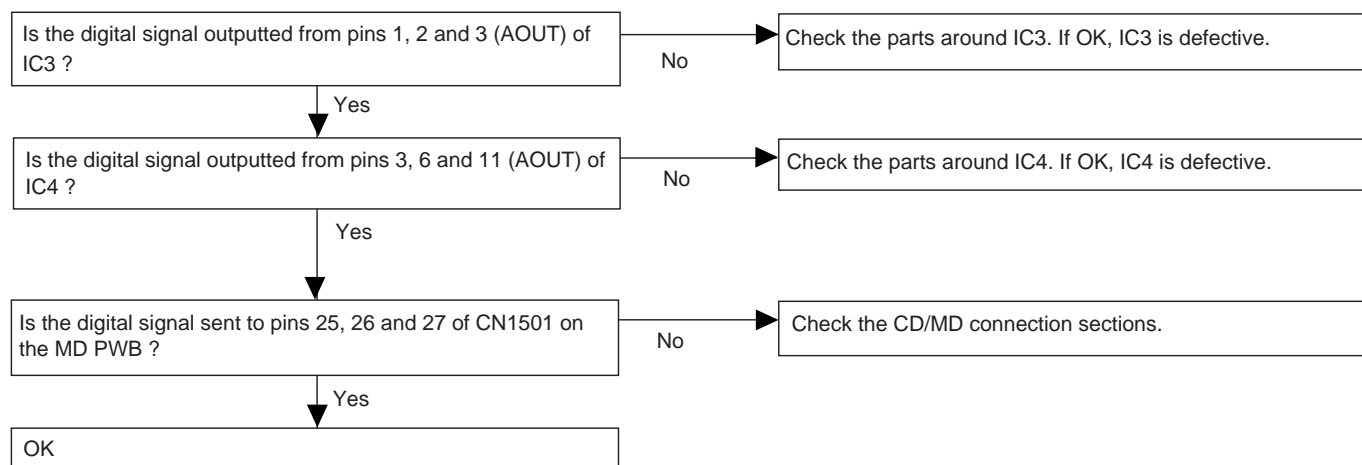
• No sound is heard.



• The sled motor does not run.



• No sound is heard during double speed EDIT. (The recording is impossible.)



MD SECTION

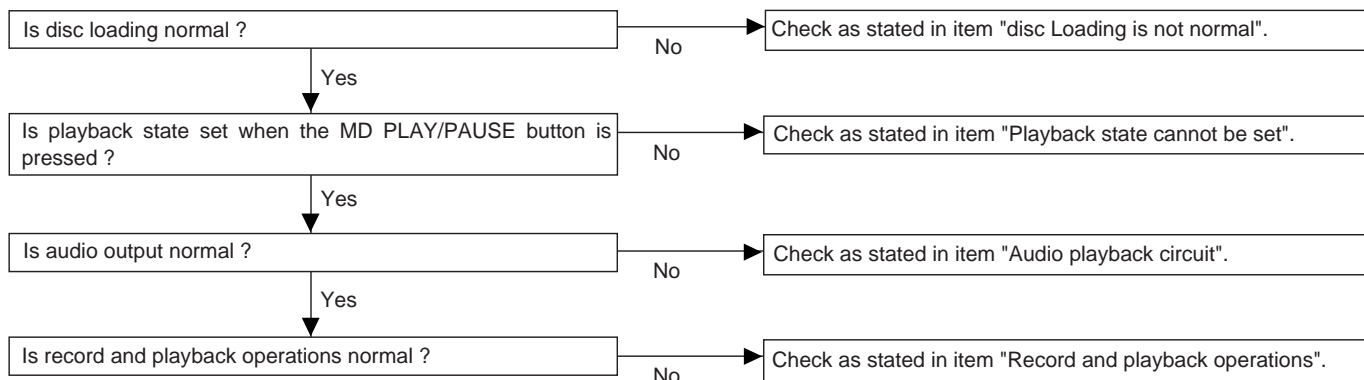
Preparations

If dusts and foreign materials are accumulated on the pickup lens, playback sounds can be skipped or the TOC (Table of Contents) can't be displayed. Clean the object lens and check the playback. When lens are dirty, do the following.

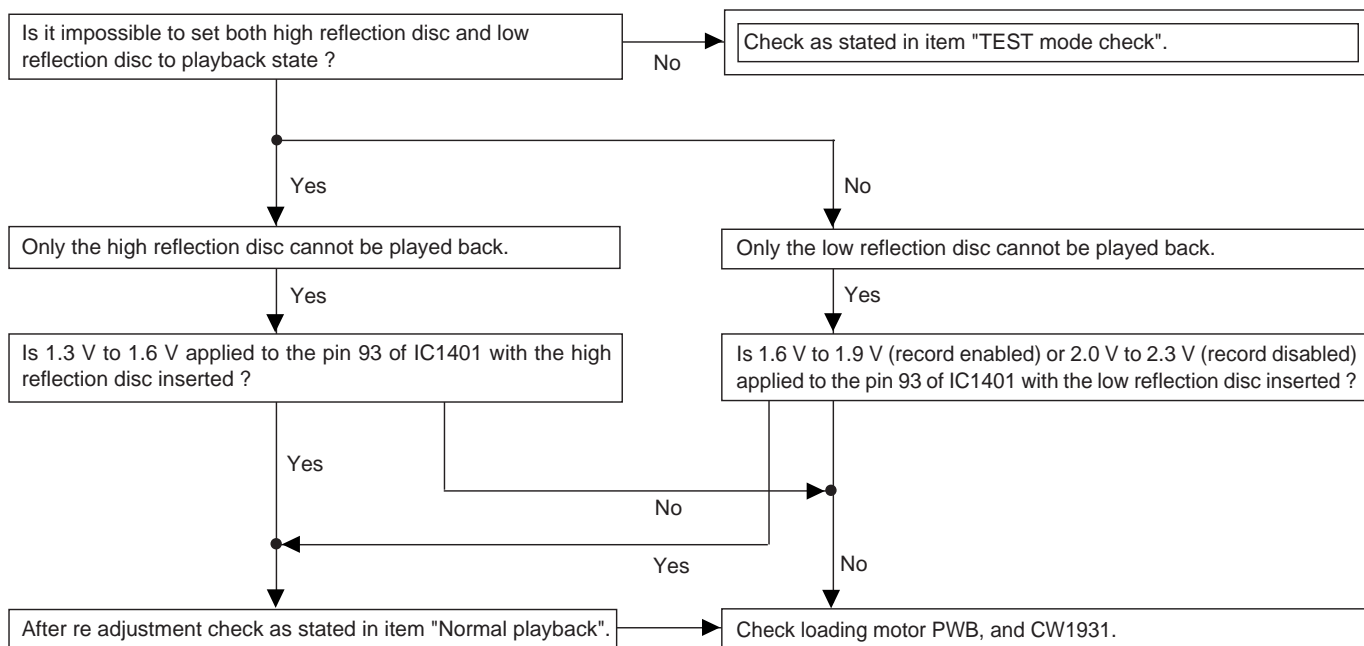
Turn off the power and wipe lens softly with a cleaning paper and a little cleaning solution so as not to damage it. Do not touch lens with bare hands.

If the MD unit doesn't work

If the MD unit doesn't start after cleaning the pickup objects lens, check it as follows.

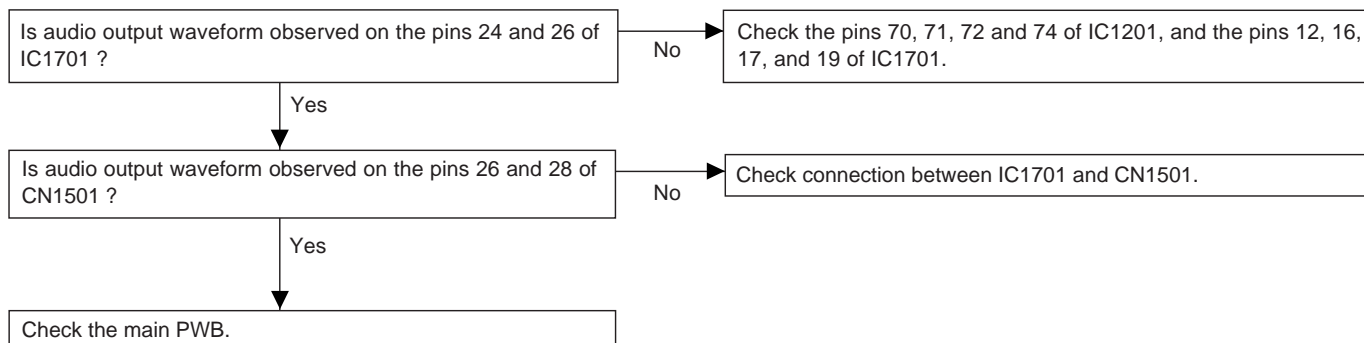


• Playback state cannot be set.



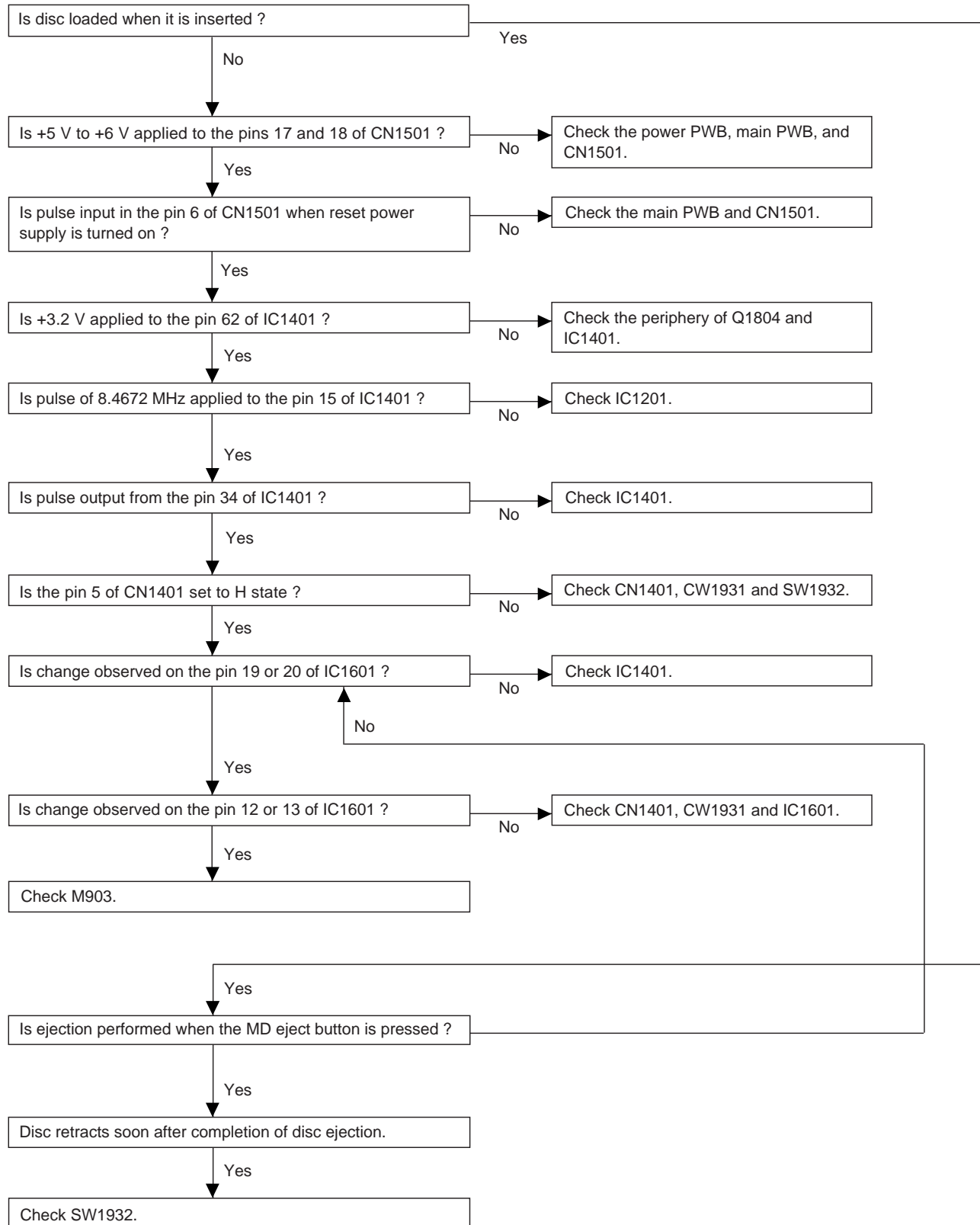
• Audio playback circuit.

When sound is not output although the playback time display advances during playback in the normal mode.



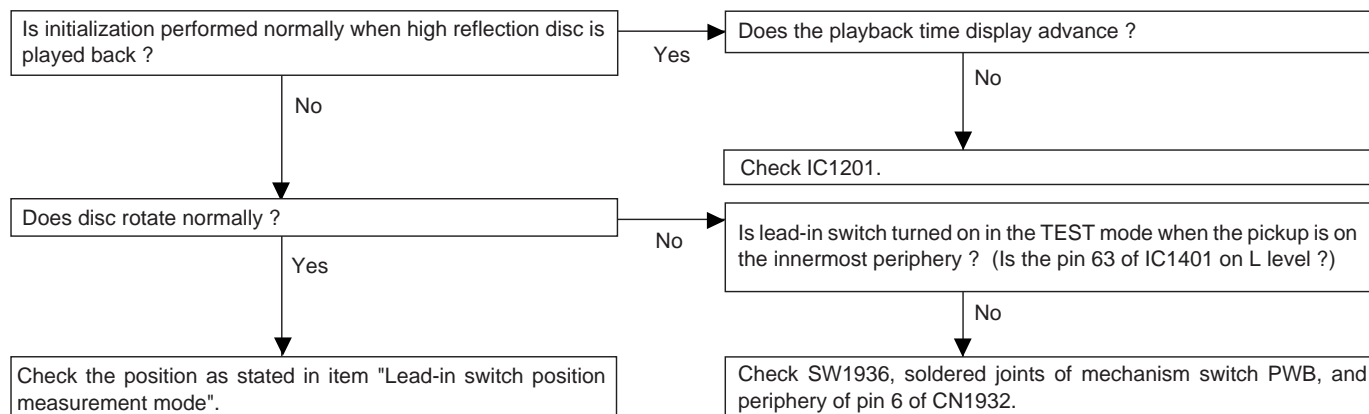
SD-CX1W

• Disc loading is not normal.



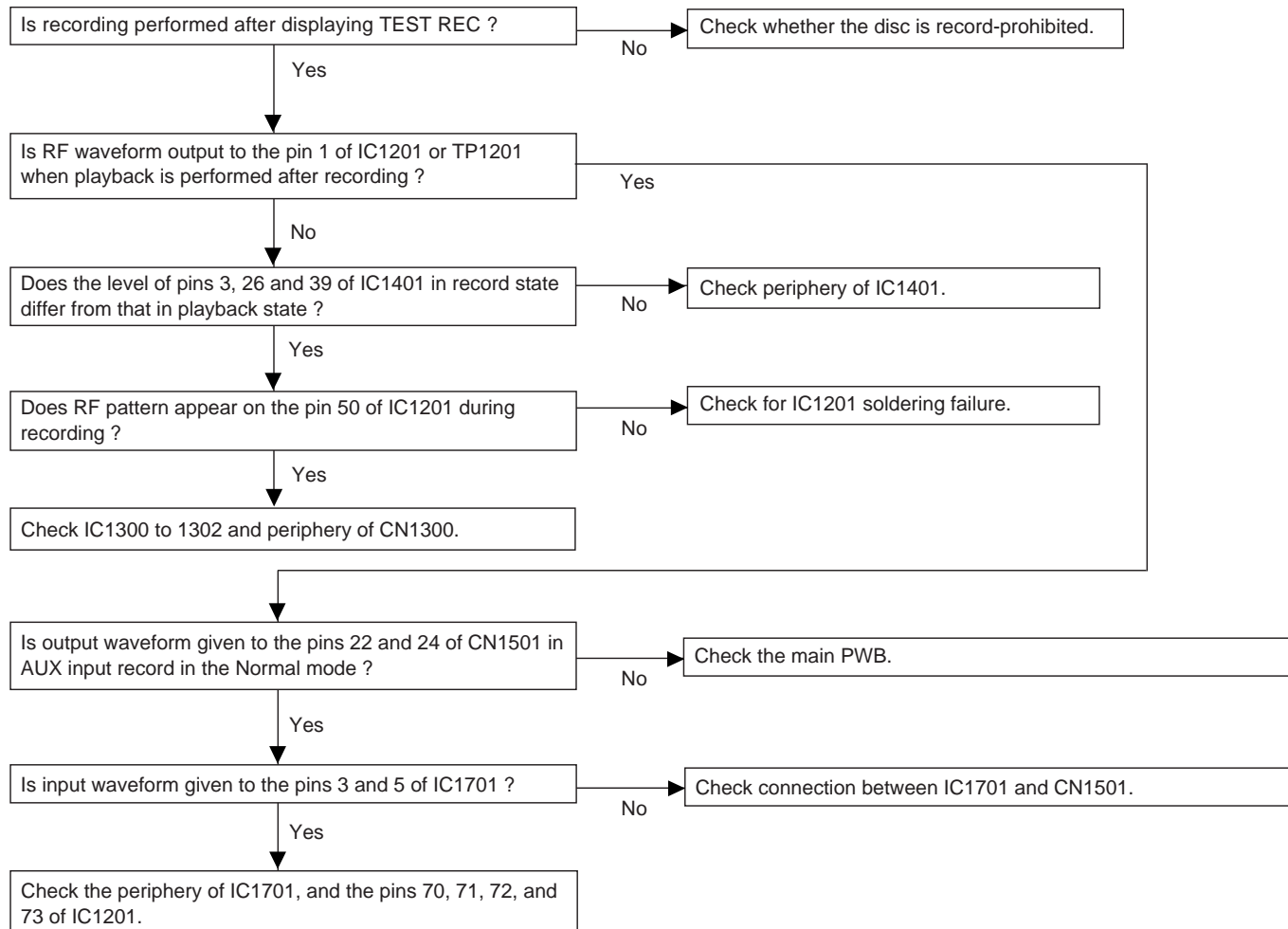
• Normal playback.

When it has been confirmed that EEPROM value is normal in the TEST mode



• Record and playback operations.

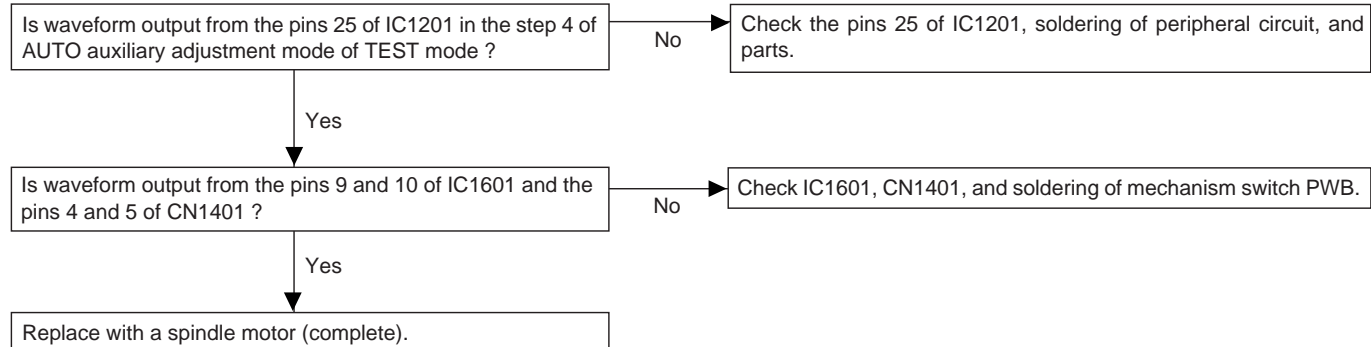
Insert the low reflection disc, and after verifying the audio output in the normal mode playback set the record/playback TEST mode.



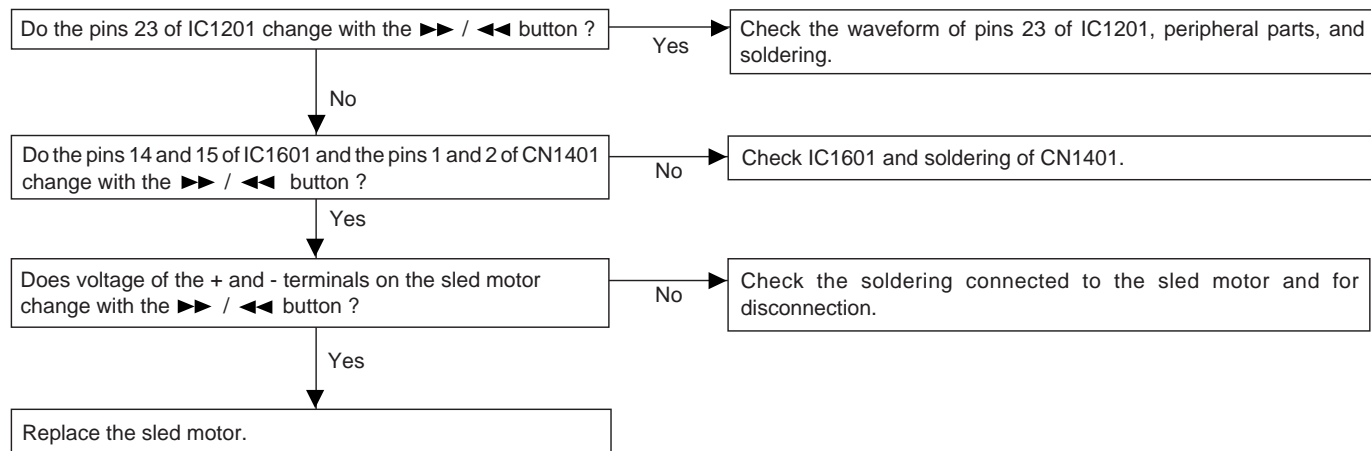
SD-CX1W

Check in the test mode

• The spindle motor does not rotate.



• The sled motor does not rotate.



FUNCTION TABLE OF IC

IC3 VHiTC9490F/-1: Servo/Signal Control (TC9490F) (1/2)

Pin No.	Terminal Name	Input/Output	Function															
1	BCK	Output	Bit clock output terminal. 32 fs, 48 fs or 64fs can be selected by command.															
2	LRCK	Output	L/R channel clock output terminal. L channel: "L", R channel: "H". the output polarity can be inverted by command.															
3	AOUT	Output	Audio data output terminal. MSB/LSB fast can be selected by command.															
4	DOUT	Output	Digital out output terminal. Up to double speed can be output.															
5*	IPF	Output	Correction flag output terminal. When the correction impossible symbol appears if the AOUT output corresponds to the C2 correction output: "H".															
6	VDD3	Input	Digital 3.3 V power supply terminal.															
7	VSS3	—	Digital GND terminal.															
8*	SBOK	Output	Subcode Q data CRCC decision result output terminal. When the decision result is OK: "H".															
9*	CLCK	Input/Output	Clock input/output terminal for subcodes P-W data reading. The input/output polarity can be selected by command.															
10*	DATA	Output	Subcodes P-W data output terminal.															
11*	SFSY	Output	Playback system frame sync signal output terminal.															
12*	SBSY	Output	Subcode block sync output terminal. In the S1 position when the subcode sync is detected: "H".															
13 14*	/HSO /UHSO	Output Output	Playback speed mode flag output terminal. <table><tr><td>/UHSO</td><td>/HSO</td><td>Playback speed</td></tr><tr><td>H</td><td>H</td><td>Normal speed playback</td></tr><tr><td>H</td><td>L</td><td>Double speed playback</td></tr><tr><td>L</td><td>L</td><td>4-time speed playback</td></tr><tr><td>—</td><td>—</td><td>—</td></tr></table>	/UHSO	/HSO	Playback speed	H	H	Normal speed playback	H	L	Double speed playback	L	L	4-time speed playback	—	—	—
/UHSO	/HSO	Playback speed																
H	H	Normal speed playback																
H	L	Double speed playback																
L	L	4-time speed playback																
—	—	—																
15	PVDD3	Input	3.3 V power supply terminal for PLL system.															
16	PDO	Output	EFM signal/PLCK signal phase error signal output terminal.															
17	TMAX	Output	TMAX detection result output terminal. <table><tr><td>TMAX detection result</td><td>TMAX output</td></tr><tr><td>Longer than the specified period</td><td>"PVDD 3"</td></tr><tr><td>Within the specified period</td><td>"Hi-z"</td></tr><tr><td>Shorter than the specified period</td><td>"AVSS 3"</td></tr></table>	TMAX detection result	TMAX output	Longer than the specified period	"PVDD 3"	Within the specified period	"Hi-z"	Shorter than the specified period	"AVSS 3"							
TMAX detection result	TMAX output																	
Longer than the specified period	"PVDD 3"																	
Within the specified period	"Hi-z"																	
Shorter than the specified period	"AVSS 3"																	
18	LPFN	Input	Amp's inversion input terminal for PLL system low-pass filter.															
19	LPFO	Output	Amp's output terminal for PLL system low-pass filter.															
20	PVREF	Input	VREF terminal only for PLL system.															
21	VCOF	Output	Filter terminal for VCO.															
22	AVSS3	—	Analog GND terminal.															
23	SLCO	Output	DAC output terminal for data slice level generation.															
24	RFI	Input	RF signal input terminal. Zin can be selected by command.															
25	AVDD3	Input	Analog 3.3 V power supply terminal.															
26	RFCT	Input	RFRP signal center level input terminal.															
27	RFZI	Input	Input terminal for RFRP signal zero crossing.															
28	RFRP	Input	RF ripple signal terminal.															
29	FEI	Input	Focus error signal input terminal.															
30	SBAD	Input	Sub-beam addition signal input terminal.															
31	TEI	Input	Tracking error input terminal. Fetch when the tracking servo is on.															
32	TEZI	Input	Input terminal for tracking error signal zero crossing.															
33	FOO	Output	Focus equalizer output terminal.															
34	TRO	Output	Tracking equalizer output terminal.															
35	VREF	Input	Analog reference power supply terminal.															
36	RFGC	Output	RF amplitude adjustment control signal output terminal.															
37	TEBC	Output	Tracking balance control signal output terminal.															
38	SEL	Output	APC circuit ON/OFF signal output terminal. When the laser is on, UHS="L": "Hi-z", UHS="H": "H" output.															

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

SD-CX1W

IC3 VHiTC9490F/-1: Servo/Signal Control (TC9490F) (2/2)

Pin No.	Terminal Name	Input/Output	Function
39	AVDD3	Input	Analog 3.3 V power supply terminal.
40	FMO	Output	Feed equalizer output terminal.
41	DMO	Output	Disc equalizer output terminal.
42	VSS3	—	Digital GND terminal.
43	VDD3	Input	Digital 3.3 V power supply terminal.
44	TESIN	Input	Test input terminal. Usually "L" fixed.
45	XVSS3	—	GND terminal for system clock oscillation circuit.
46	XI	Input	System clock oscillation circuit input terminal.
47	XO	Output	System clock oscillation circuit output terminal.
48	XVDD3	Input	3.3 V power supply terminal for system clock oscillation circuit.
49	DVSS3	—	GND terminal for D/A converter.
50	RO	Output	R channel data normal rotation output terminal.
51	DVDD3	Input	3.3 V power supply terminal for D/A converter.
52	DVR	—	Reference voltage terminal.
53*	LO	Output	L channel data normal rotation output terminal.
54	DVSS3	—	D/A converter section GND terminal.
55*	ZDET	Output	1-bit D/A converter 0 detection flag output terminal.
56	VSS5	—	GND terminal for microcomputer interface.
57-60	BUS0-BUS3	Input/Output	Data input/output terminal for microcomputer interface.
61	BUCK	Input	Clock input terminal for microcomputer interface.
62	/CCE	Input	Chip enable signal input terminal for microcomputer interface. In case of "L", BUS3-0 are active.
63	/RST	Input	Reset signal input terminal. Reset: "L".
64	VDD5	Input	5 V power supply terminal for microcomputer interface.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

Note: AI/F: Analog input/output terminal.

3-5I/F: Terminal with a built-in 3-5 interface (5 V system input/output terminal).

3I/F: 3 V system input/output terminal.

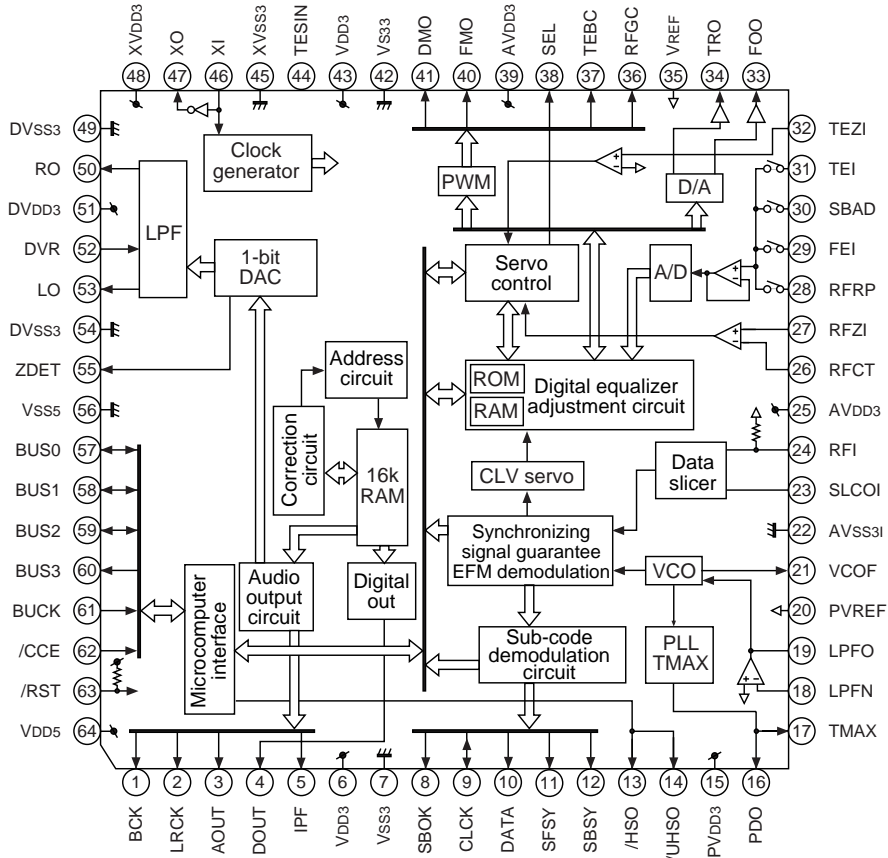


Figure 82 BLOCK DIAGRAM OF IC

ICU01 VHiLC75341M-1: Audio Processor (LC75341M)

Pin No.	Terminal Name	Function
1	DI	Serial data and clock input terminal for control.
2	CE	Chip enable terminal. When changing from "H" to "L", data is written in the internal latch and each analog switch is turned on. Data transmission is enabled at "H" level.
3	VSS	Ground terminal.
4	LOUT	Bass band filter construction capacitor/resistor connection terminal and bass/treble output terminal.
5	LBASS	Bass band filter capacitor and resistor connection terminal.
6	LTRE	Treble band filter capacitor connection terminal.
7	LIN	L-CH signal input terminal.
8	LSELO	Input selector output terminal.
9-12 (11*)	L4-L1	Input signal terminal.
13-16 (14*)	R1-R4	Input signal terminal.
17	RSELO	Input selector output terminal.
18	RIN	R-CH signal input terminal.
19	RTRE	Treble band filter capacitor connection terminal.
20	RBASS	Bass band filter capacitor and resistor connection terminal.
21	ROUT	Bass band filter capacitor/resistor connection terminal and bass/treble output terminal.
22	Vref	$0.5 \times VDD$ voltage generation section for analog ground. Connect a capacitor of 10 μF or more between Vref and AVSS (VSS) as a countermeasure against the power supply ripple.
23	VDD	Power supply terminal.
24	CL	Serial data and clock input terminal for control.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

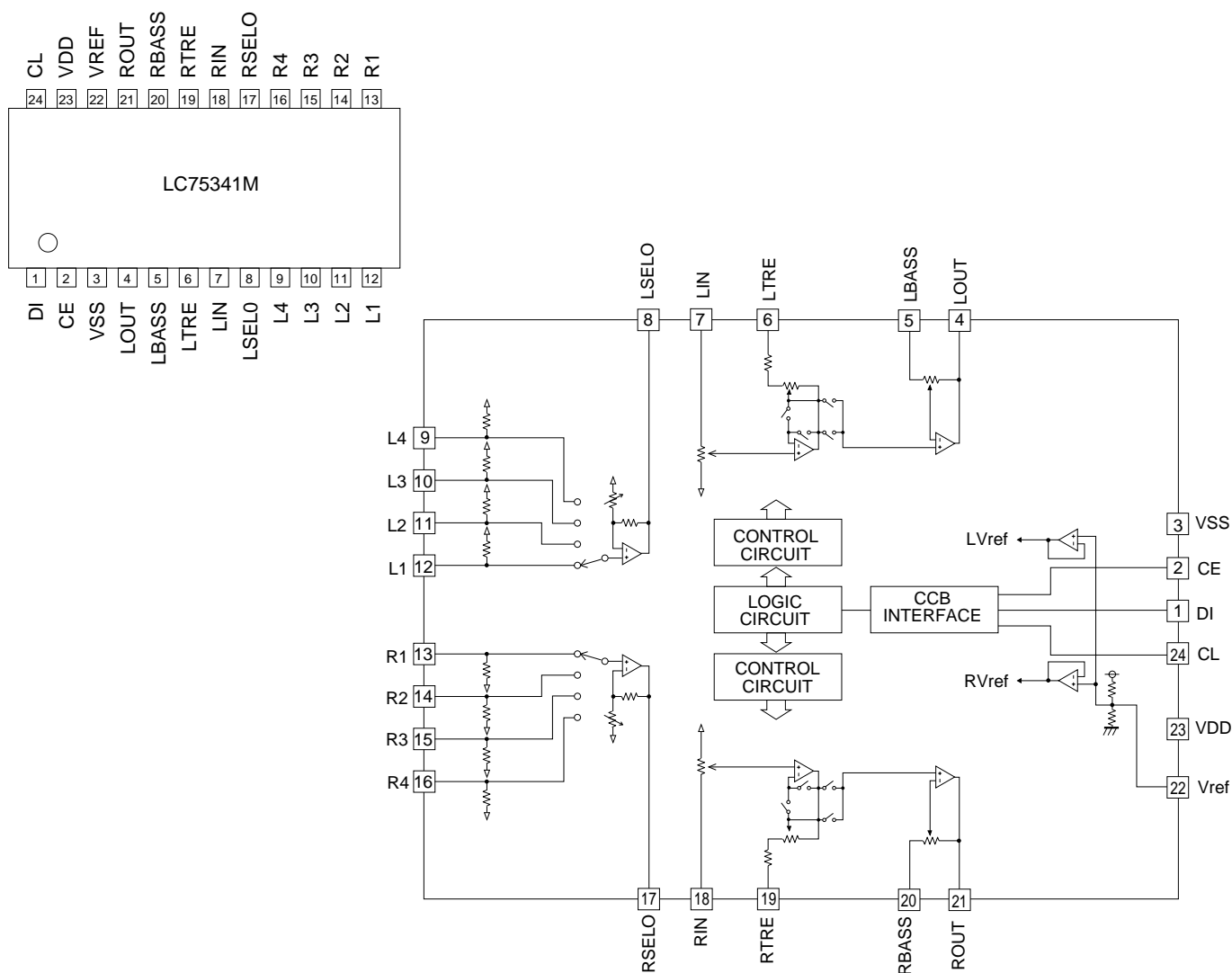


Figure 83 BLOCK DIAGRAM OF IC

SD-CX1W

ICA100 RH-iX2815AFZZ: 1 Bit AD Converter (IX2815AF)

Pin No.	Port Name	Input/Output	Function
1	VDDL	Input	L channel digital output section power terminal.
2	OUTL (+)	Output	L channel forward output terminal.
3	OUTL (-)	Output	L channel reverse output terminal.
4	GNDD	—	Digital output section ground terminal.
5	OUTR (-)	Output	R channel reverse output terminal.
6	OUTR (+)	Output	R channel forward output terminal.
7	VDDR	Input	R channel digital output section power terminal.
8	VDDX	Input	Oscillation section power terminal.
9	XI	Input	Quartz oscillator connection terminal. Clock necessary for the system is generated.
10	XO	Output	Quartz oscillator connection terminal. Clock necessary for the system is generated.
11	GNDX	—	Oscillation section ground terminal.
12*	MCK	Output	System clock output terminal.
13	TEST	Input	Test terminal. As usual, it is used at "L".
14	NFR1 (+)	Input	R channel forward signal feedback input terminal.
15	NFR2 (-)	Input	R channel reverse signal feedback input terminal.
16	GNDA	—	Analog ground terminal for AD converter.
17	Rch IN	Input	R channel analog input terminal.
18	Rch Vref	Input	Reference voltage terminal for R channel.
19	Lch Vref	Input	Reference voltage terminal for L channel.
20	Lch IN	Input	L channel analog input terminal.
21	RESET	Input	Reset terminal. It is reset with "L".
22	NFL2 (-)	Input	L channel reverse signal feedback input terminal.
23	NFL1 (+)	Input	L channel forward signal feedback input terminal.
24	VDDA	Input	Analog current terminal for AD converter.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

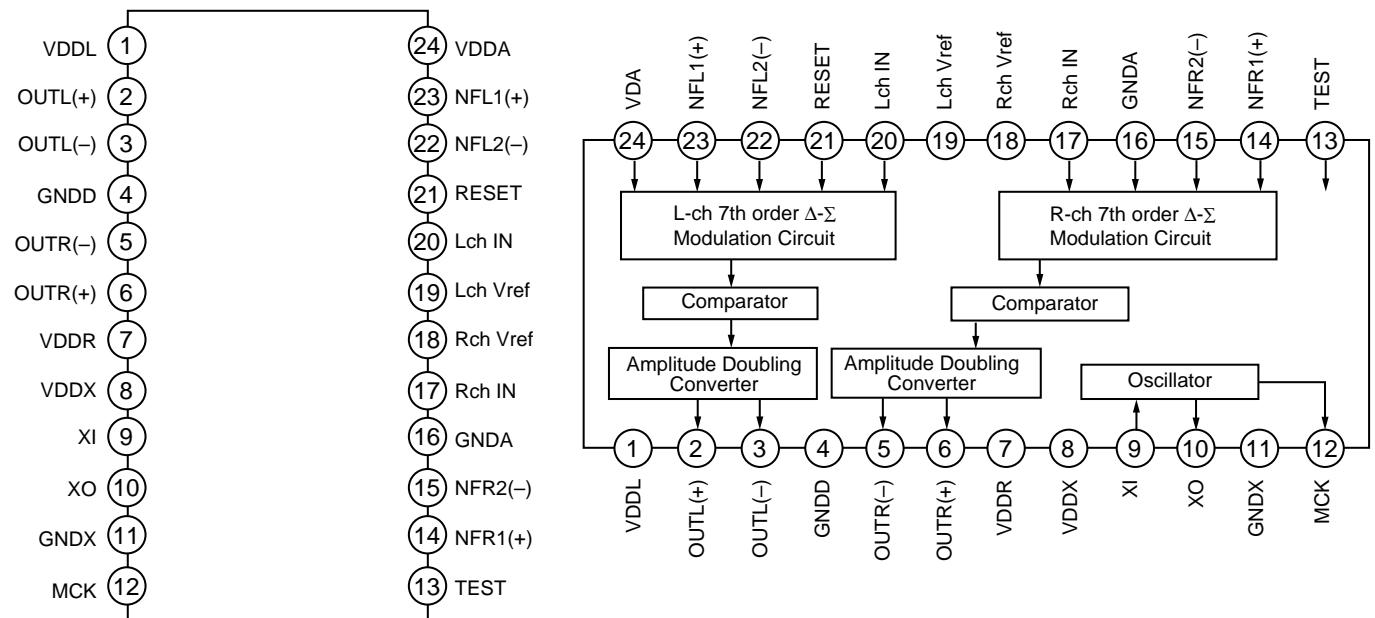


Figure 84 BLOCK DIAGRAM OF IC

ICD01 RH-iX0376AWZZ: System Microcomputer (IX0376AW) (1/2)

Pin No.	Terminal Name	Port Name	Input/Output	Remarks
1*	P77/AN7	—	Input (A/D Input)	"L" = Output fixed.
2	P76/AN6	KEY1	Input (A/D Input)	A/D KEY input 1.
3	P75/AN5	KEY2	Input (A/D Input)	A/D KEY input 2.
4	P74/AN4	KEY3	Input (A/D Input)	A/D KEY input 3.
5	P73/AN3	P-DWN	Output	Vref voltage cut when detecting a power failure at SYS STOP. "H" = Normal state, "L" = Power failure.
6	P72/AN2	TUNER_SM	Input (A/D Input)	Tuner tuning level detection. Output "L".
7	P71/AN0	PROTECT	Input (A/D Input)	Ignored for 500 msec after detecting an error and turning the power ON. When the input voltage is 2.5 V or below, the power is turned OFF.
8	P70/AN0	SPAN	Input (A/D Input)	"L" in input.
9	PB3	POWER	Output	Control of connection/disconnection on the primary side of power supply. "H" = Connection, "L" = Disconnection.
10	PB2/DA	H.P_SW	Input	Switch for headphone plug-in detection. "H" = Headphone, "L" = Speaker.
11	P57/SRDY3/AN15	CD_OP/CL_SENS	Input (A/D Input)	Turnover voltage detection when locking the CD lid. 1.5 V or below = CLOSE, 3.8 V or more = OPEN.
12	P56/SCLK3/AN14	P56	Input	"L" = Output fixed.
13	P55/SOUT3/AN13	P55	Input	"L" = Output fixed.
14	P54/SIN3/AN12	P54	Input	"L" = Output fixed.
15	P53/SRDY2/AN11	MD_LOAD_SW	Input	MD LOAD SW detection. L -> H = DISC IN.
16	P52/SCLK2/AN10	MD_ST	Output	1. Beginning of tracks on CD: 20 msec. H output. 2. MD ON (RESET): 100 msec. H output.
17	P51/SOUT2/AN9	MD_SERACH	Output	CD PLAY: "L" (including CUE/REVIEW). Others: "H".
18	P50/SIN2/AN8	MD_RESET	Output	MD RESET output.
19	P67/SRDY1/CS/SCLK12	MD_D_STB	Input	MD strobe input.
20	P66/SCLK11	MD_D_SCK	Output	MD clock output.
21	P65/SOUT1	MD_KDATA	Output	MD KEY data.
22	P64/SIN1	MD_DATA	Input	MD data input.
23	P63/CNTR1	CD_BUS3	Input/Output	Data input/output terminal for CD interface 3. "L" output fixed except CD function.
24	P62/CNTR0	CD_BUS2	Input/Output	Data input/output terminal for CD interface 2. "L" output fixed except CD function.
25	P61/PWM	CD_BUS1	Input/Output	Data input/output terminal for CD interface 1. "L" output fixed except CD function.
26	P60	CD_BUS0	Input/Output	Data input/output terminal for CD interface 0. "L" output fixed except CD function.
27	P47/T3OUT	CD_BUCK	Output	Clock output terminal for CD interface. "L" output fixed except CD function.
28	P46/T1OUT	CD_CCE	Output	Chip enable output terminal for CD interface. "L" output fixed except CD function.
29	P45/INT1/ZCR	P45	Input	Connected to GND.
30*	P44/INT4	—	Input	"L" output fixed.
31	P43/INT3	IC_CLK	Output	External control IC related clock. SANYO C bus, input/output expands.
32	P42/INT2	REMOCON_IN	Input	Remote control input.
33	P41	IC_DI	Output	External control IC related DATA output. SANYO C bus, input/output expands.
34	P40/INT0	SYS_STOP	Input	Microcomputer backup detection. "H" = Normal state, "H" -> "L" = Power failure detection.
35	RESET	RESET	Input	Microcomputer reset terminal.
36	PB1/XCIN	IC_CE	Output	External control IC related chip enable output. SANYO CCB bus.
37	PB0/XCOUT	IC_DO	Input	External control IC related DATA output. SANYO CCB bus.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

SD-CX1W

ICD01 RH-iX0376AWZZ: System Microcomputer (IX0376AW) (2/2)

Pin No.	Terminal Name	Port Name	Input/Output	Remarks
38	XIN	X_IN	Input	Reference oscillation input. 8.38 MHz crystal connection.
39	XOUT	X_OUT	Output	Reference oscillation output. 8.38 MHz crystal connection.
40	VSS	VSS	—	Connected to GND.
41	P27	IC_LCK2	Output	External control IC related latch clock output. For input/output expander No.2
42	P26	CD_PU_IN	Input	CD pickup position detection. "H" = Except "L", "L" = CD pickup PUIN position.
43	P25	DR_OP_IN	Input	CD door open detection switch. "H" = Except "L", "L" = CD door OPEN completed.
44	P24	DR_CL_IN	Input	CD door close detection switch. "H" = Except "L", "L" = CD door CLOSE completed.
45	P23/DIG19	IC_LCK1	Output	External control IC related latch clock output. For input/output expander No.1.
46	P22/DIG18	CD_RESET	Output	For input/output expander No.1. "H" -> "L": RESET operation.
47	P21/DIG17	TIMER_LED	Output	Timer stand-by LED output. On: "H", Off: "L".
48	P20/DIG16	DIG1	Output	Digit output for FL No.1.
49-56	P17/DIG15-P10/DIG08	DIG2-DIG9	Output	Digit output for FL No.2-No.9.
57-60	P07/DIG07-P04/DIG04	DIG10-DIG13	Output	Digit output for FL No.10-No.13.
61-64	P03/SEG35-P00/SEG32	SEG36-SEG33	Output	Segment output for FL No.36-No.33.
65-72	P37/SEG31-P30/SEG24	SEG32-SEG25	Output	Segment output for FL No.32-No.25.
73-80	P97/SEG23-P90/SEG16	SEG24-SEG17	Output	Segment output for FL No.24-No.17.
81-88	P87/SEG15-P80/SEG08	SEG16-SEG9	Output	Segment output for FL No.16-No.9.
89,90	PA7/SEG07,PA6/SEG06	SEG8,SEG7	Output	Segment output for FL No.8, No.7.
91	VCC	VCC	Input	Power supply +5 V.
92-97	PA5/SEG05-PA0/SEG00	SEG6-SEG1	Output	Segment output for FL No.6-No.1.
98	VEE	VEE	Input	Pull-down power supply for FL.
99	AVSS	AVSS	—	A/D conversion section reference GND.
100	VREF	VREF	Input	A/D conversion section reference power input +5 V.

ICD02/ICD03 VHiBU2092F/-1: Input/Output Expander (BU2092F)

Pin No.	Terminal Name	Port Name	Function
1	VSS	GND	GND
2	DATA	DI	Serial data input.
3	CLOCK	CLK	Data shift clock.
4	LCK	LCK1	Data latch clock.
5 (5* ICD02)	Q0	LED_RED	Red of three-colored LED. "H"= OFF, "L"= ON.
6	Q1	LED_GREEN	Green of three-colored LED. "H"= OFF, "L"= ON.
7	Q2	LED_BLUE	Blue of three-colored LED. "H"= OFF, "L"= ON.
8 (8* ICD03)	Q3	LED_SP	MD normal mode, Green. "H"= OFF, "L"= ON.
9 (9* ICD03)	Q4	LED_LP2	MD 2 times mode, Blue. "H"= OFF, "L"= ON.
10 (10* ICD03)	Q5	LED_LP4	MD 4 times mode, Orange: "H"= OFF, "L"= ON.
11 (11* ICD03)	Q6	LED_MONO	MONO indication LED. "H"= OFF, "L"= ON.
12	Q7	LED_AUX	AUX function indication LED. "H"= OFF, "L"= ON.
13	Q8	LED_TUNER	TUNER function indication LED. "H"= OFF, "L"= ON.
14	Q9	LED_CD	CD function indication LED. "H"= OFF, "L"= ON.
15 (15* ICD02)	Q10	LED_MD	MD function indication LED. "H"= OFF, "L"= ON.
16	Q11	LED_GROUP	Group indication LED. "H"= OFF, "L"= ON.
17	$\overline{\text{OE}}$	GND	Output enable.
18	VDD	VDD	Power supply +5 V.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

ICD01 RH-iX0376AWZZ: System Microcomputer (IX0376AW)

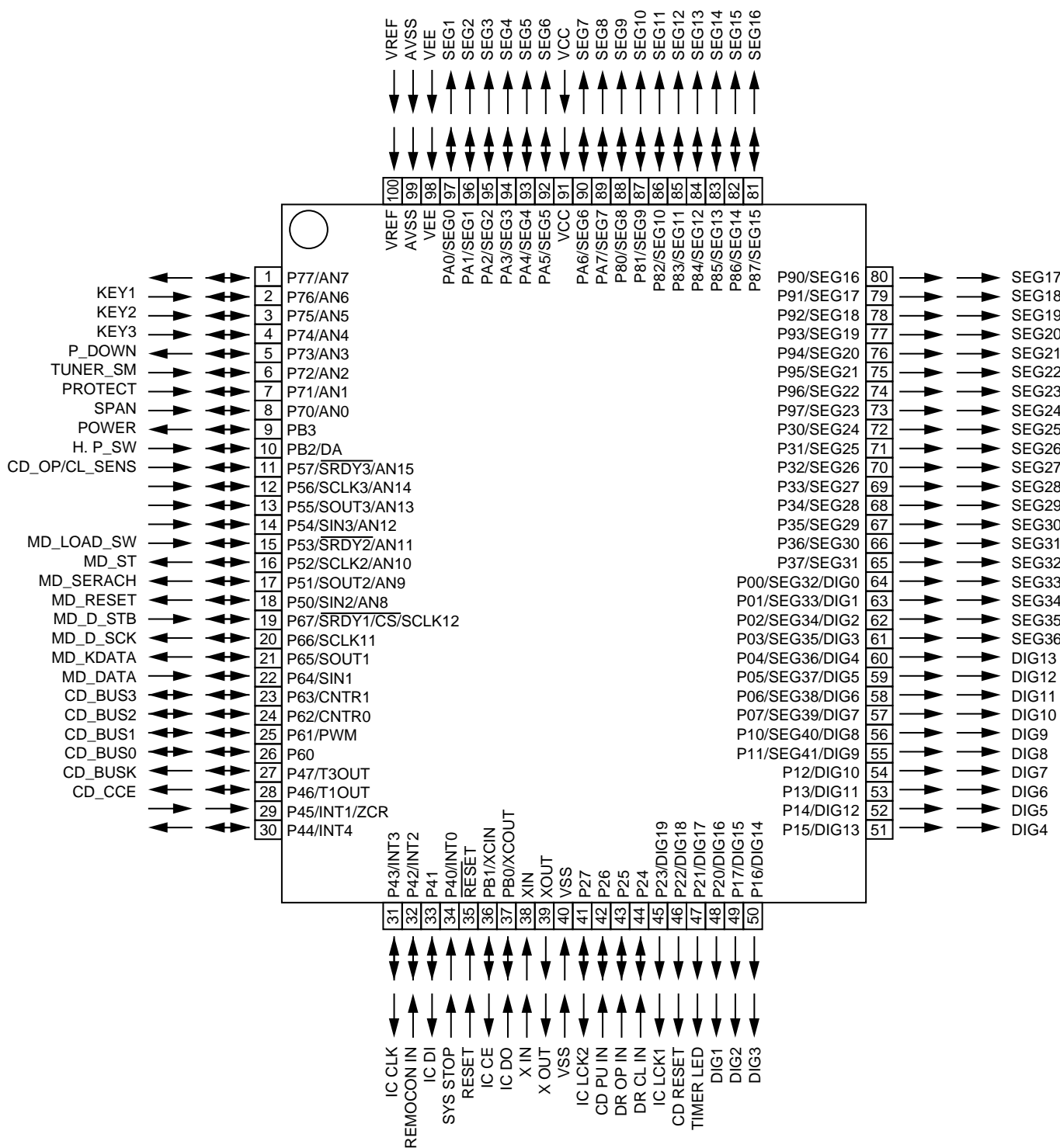


Figure 87 BLOCK DIAGRAM OF IC

IC2 VHiTA2147F/-1: Servo Pre Amp. (TA2147F)

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.



IC1 VHiLA6558++-1: Focus/Tracking/Spin/Sled Driver (LA6558)

Pin No.	Terminal Name	Function
1*	VO3-	CH3 (-) output.
2*	VO3+	CH3 (+) output.
3	VO5-	CH5 (-) output. Inversion against input.
4	VO5+	CH5 (+) output. Non-inversion against input.
5	VO4-	CH4 (-) output. Inversion against input.
6	VO4+	CH4 (+) output. Non-inversion against input.
7	P-GND	Power system GND (CH3, 4, 5).
8	S-GND	Signal system GND.
9	VREF	Reference voltage input.
10	IN-MUTE	BTL AMP (CH1, 2, 4, 5) and 3.3 V, 5 VREG output. ON/OFF ("H": Output ON, "L": Output OFF).
11*	0-RESET	Reset output (open collector).
12	VIN4	CH4 input.
13	VIN5	CH5 input.
14	VIN3+	CH3 input +.
15	VIN3-	CH3 input -.
16	5VERG	5V power output.
17	VIN6-	CH6 input -.
18	VIN6+	CH6 input +.
19	VIN2	CH2 input.
20	VIN1	CH1 input.
21	S-VCC	Signal system VCC.
22	3.3VREG	3.3 V power output.
23	P-VCC	Power system power supply.
24	P-GND2	Power system GND (CH1, 2, 6).
25	V01-	CH1 (-) output. Inversion against input.
26	V01+	CH1 (+) output. Non-inversion against input.
27	V02-	CH2 (-) output. Inversion against input.
28	V01+	CH2 (+) output. Non-inversion against input.
29	V06-	CH6 (-) output.
20	V06+	CH6 (+) output.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

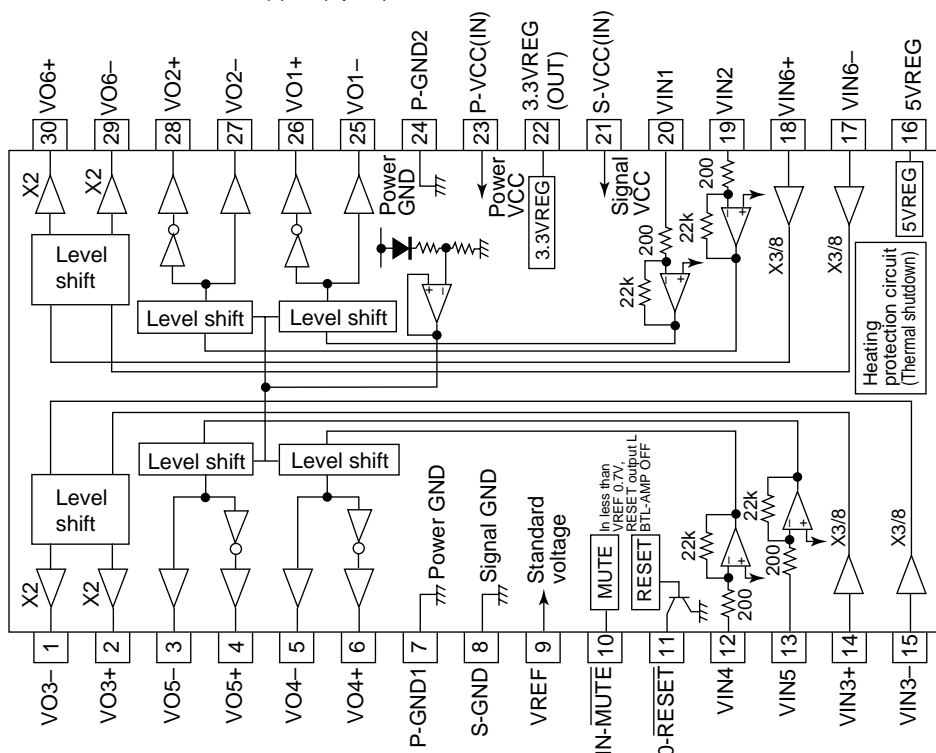


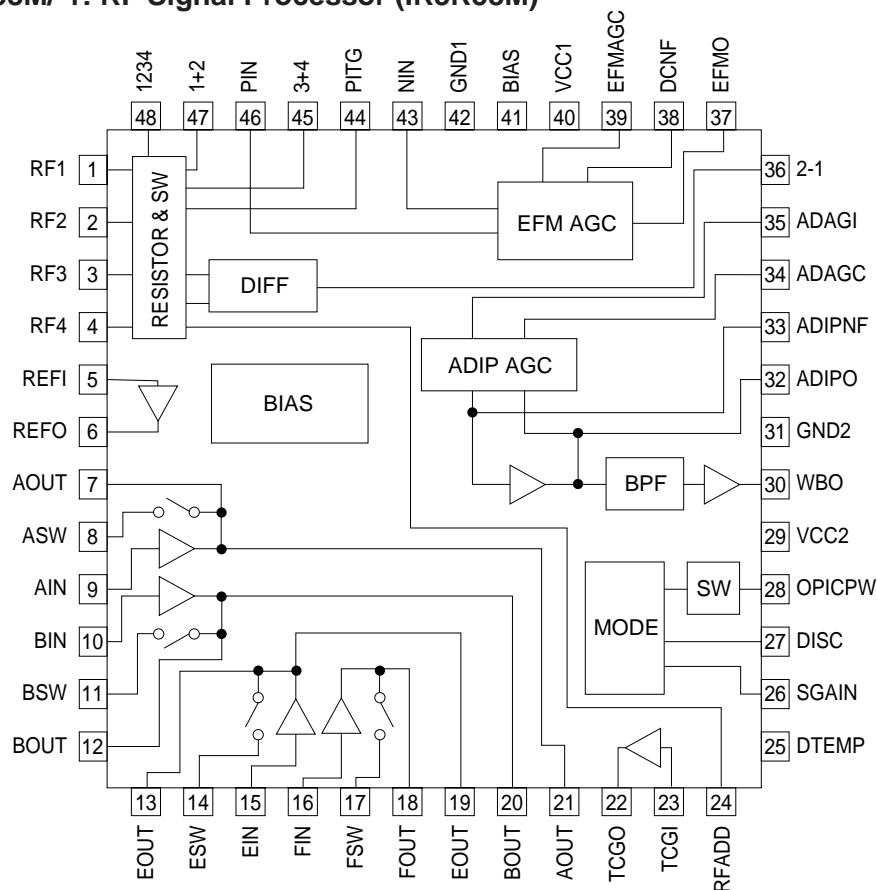
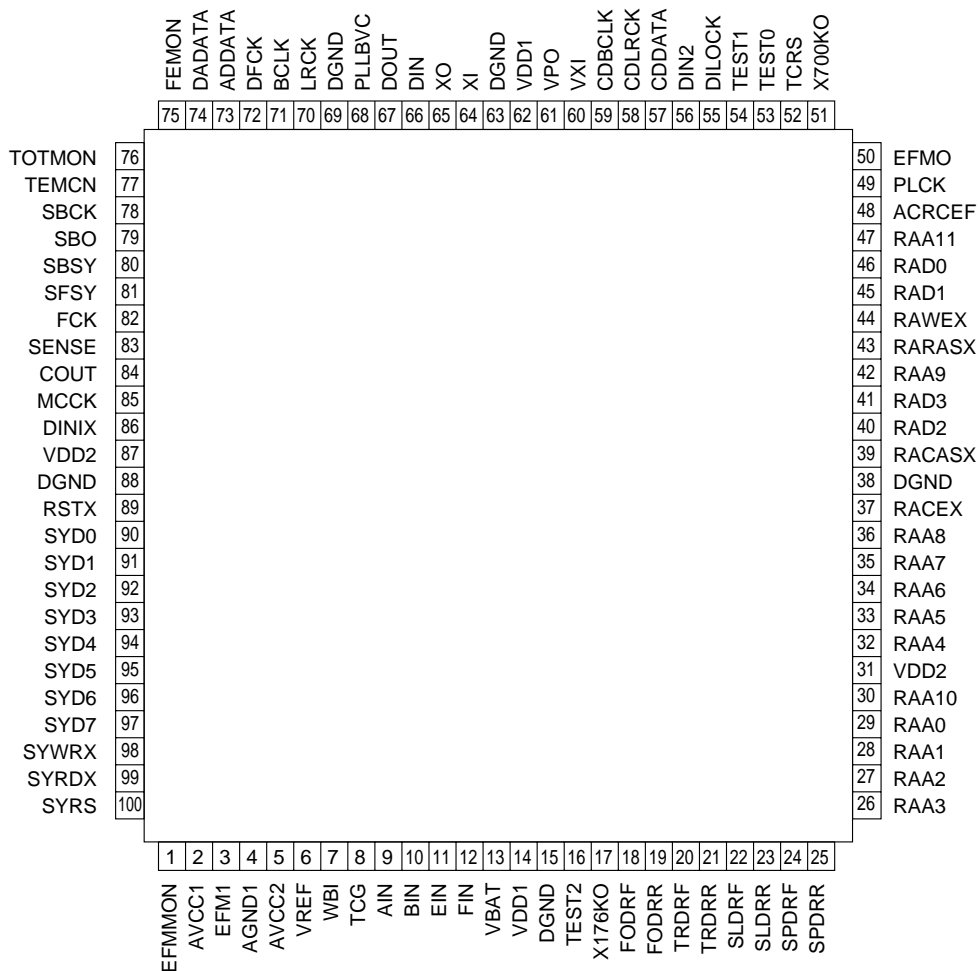
Figure 89 BLOCK DIAGRAM OF IC

SD-CX1W

IC1101 VHiiR3R58M/-1: RF Signal Processor (IR3R58M)

Pin No.	Terminal Name	Function
1	RF1	RF signal input terminal 1. Input of RF signal output of pickup.
2	RF2	RF signal input terminal 2. Input of RF signal output of pickup.
3	RF3	RF signal input terminal 3. Input of RF signal output of pickup.
4	RF4	RF signal input terminal 4. Input of RF signal output of pickup.
5	REFI	Reference voltage amplifier input terminal.
6	REFO	Reference voltage amplifier output terminal.
7	AOUT	Output terminal 1 of signal amplifier for servo (focus servo system).
8	ASW	Output terminal 2 of signal amplifier for servo (focus servo system).
9	AIN	Reverse input terminal of signal amplifier for servo (focus servo system).
10	BIN	Reverse input terminal of signal amplifier for servo (focus servo system).
11	BSW	Output terminal 2 of signal amplifier for servo (focus servo system).
12	BOUT	Output terminal 1 of signal amplifier for servo (focus servo system).
13	EOUT	Output terminal 1 of signal amplifier for servo (tracking servo system).
14	ESW	Output terminal 2 of signal amplifier for servo (tracking servo system).
15	EIN	Reverse input terminal of signal amplifier for servo (tracking servo system).
16	FIN	Reverse input terminal of signal amplifier for servo (tracking servo system).
17	FSW	Output terminal 2 of signal amplifier for servo (tracking servo system).
18	FOUT	Output terminal 1 of signal amplifier for servo (tracking servo system).
19	EOUT	Output terminal 1 of signal amplifier for servo (tracking servo system).
20	BOUT	Output terminal 1 of signal amplifier for servo (focus servo system).
21	AOUT	Output terminal 1 of signal amplifier for servo (focus servo system).
22	TCGO	Group mode: Track cross detection signal amplifier output terminal.
23	TCGI	Group mode: Track cross detection signal amplifier input terminal.
24	RFADD	Resistance addition output terminal of RF1 - RF4.
25	DTEMP	Chip temperature detection terminal.
26	SGAIN	Switch section control terminal of amplifier for servo.
27	DISC	Pit mode, groove mode selecting control terminal.
28*	OPICPW	Power output terminal for OPIC.
29	VCC2	Power supply terminal of digital section and power section.
30*	WBO	Comparator output terminal for binary coded ADIP signal.
31	GND2	GND terminal of digital section and power section.
32	ADIPO	ADIP signal preamplifier output terminal.
33*	ADIPNF	ADIP signal AGC amplifier output terminal.
34	ADAGC	Smoothing capacitor connection terminal for ADIP signal AGC.
35	ADAGI	ADIP signal AGC amplifier input terminal.
36	2-1	Differential signal of RF1, RF2.
37	EFMO	RF signal AGC amplifier output terminal.
38	DCNF	Smoothing capacitor connection terminal for RF signal AGC amplifier reference voltage.
39	EFMAGC	Smoothing capacitor connection terminal for RF signal AGC.
40	VCC1	Analog section power supply terminal.
41	BIAS	Bias input terminal.
42	GND1	Analog section GND terminal.
43	NIN	RF signal AGC amplifier reverse input terminal.
44	PITG	Pit mode: Ground terminal.
45	3 + 4	Groove mode: Resistance addition output terminal of RF3 and RF4.
46	PIN	RF signal AGC amplifier non-reverse input terminal.
47	1 + 2	Groove mode: Resistance addition output terminal of RF1 and RF2.
48	1234	Pit mode: Resistance addition output terminal of RF1 - RF4.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC1101 VHiR3R58M/-1: RF Signal Processor (IR3R58M)**IC1201 VHiLR37816A-1: Endec/Atrac (LR37816A)****Figure 91 BLOCK DIAGRAM OF IC**

SD-CX1W

IC1201 VHiLR37816A-1: Endec/Atrac (LR37816A) (1/2)

Pin No.	Terminal Name	Input/Output	Function
1*	EFMMON	Output	EFM monitor output.
2	AVCC1	Input	Analog power supply (for EFM system 8AD, 8DA).
3	EFMI	Input	EFM signal input from RF amplifier.
4	AGND1	—	Analog GND.
5	AVCC2	Input	Analog power supply (for servo system, ADIP system 1bit AD).
6	VREF	Input	Reference voltage input for RF amplifier.
7	WBI	Input	ADIP wobble signal.
8	TCG	Input	Track cross signal.
9	AIN	Input	Focus error signal A.
10	BIN	Input	Focus error signal B.
11	EIN	Input	Tracking error signal E.
12	FIN	Input	Tracking error signal F.
13	VBAT	Input	Power voltage detection signal for constant voltage servo.
14	VDD1	Input	Internal digital power supply.
15	DGND	—	Digital GND.
16	TEST2	Input	Input for test. Connected to GND if used normally.
17*	X176KO	Output	Clock output. $f=176.4$ kHz (4fs).
18*	FODRF	Output	Focus servo forward output. PWM.
19	FODRR	Output	Focus servo reverse output. PWM.
20*	TRDRF	Output	Tracking servo forward output. PWM.
21	TRDRR	Output	Tracking servo reverse output. PWM.
22*	SLDRF	Output	Slide servo forward output. PWM.
23	SLDRR	Output	Slide servo reverse output. PWM.
24*	SPDRF	Output	Spindle servo forward output. PWM.
25	SPDRR	Output	Spindle servo reverse output.
26	RAA3	Output	Address output to external D-RAM. ADR3
27	RAA2	Output	Address output to external D-RAM. ADR2
28	RAA1	Output	Address output to external D-RAM. ADR1
29	RAA0	Output	Address output to external D-RAM. ADR0 (LSB)
30*	RAA10	Output	Address output to external D-RAM. ADR10 (MSB)
31	VDD2	Input	Power supply for interface.
32	RAA4	Output	Address output to external D-RAM. ADR4
33	RAA5	Output	Address output to external D-RAM. ADR5
34	RAA6	Output	Address output to external D-RAM. ADR6
35	RAA7	Output	Address output to external D-RAM. ADR7
36	RAA8	Output	Address output to external D-RAM. ADR8
37	RAOEX	Output	Data output enable signal output to external D-RAM.
38	DGND	—	Digital GND.
39	RACASX	Output	Column address strobe signal output to external D-RAM.
40	RAD2	Input/Output	Data input and output with external D-RAM. D2
41	RAD3	Input/Output	Data input and output with external D-RAM. D3 (MSB)
42	RAA9	Output	Address output to external D-RAM. ADR9
43	RARASX	Output	Low address strobe signal output to external D-RAM.
44	RAWEX	Output	Data write enable signal output to external D-RAM
45	RAD1	Input/Output	Data input and output with external D-RAM. D1
46	RAD0	Input/Output	Data input and output with external D-RAM. D0 (LSB)
47*	RAA11	Output	Address output to external D-RAM. ADR11 (MSB 64 Mbit)
48*	ACRCER	Output	CRC error flag monitor output of ADIP.
49*	PLCK	Output	Playback mode: EFM PLL clock output.
50	EFM0	Output	Recording mode: EFM signal output. Playback mode: C1F (C1 error flag) monitor output.
51*	X700KO	Output	Clock output. $f=705.6$ kHz.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC1201 VHiLR37816A-1: Endec/Atrac (LR37816A) (2/2)

Pin No.	Terminal Name	Input/Output	Function
52*	TCRS	Output	Track cross signal.
53	TEST0	Input	Input for test. Connected to GND if used normally.
54	TEST1	Input	Input for test. Connected to GND if used normally.
55	DILOCK	Output	DIN lock detection.
56	DIN2	Input/Output	Digital input signal. Expansion port 0.
57	CDDATA	Input/Output	Data input for dubbing. Expansion output port 1.
58	CDLRCK	Input/Output	LR clock input for dubbing. Expansion output port 2.
59	CDBCLK	Input/Output	Bit clock input for dubbing. Expansion output port 3.
60	VXI	Input	PLL clock input for variable pitch.
61*	VPO	Output	PLL phase error output for variable pitch.
62	VDD1	Input	Internal digital power supply.
63	DGND	—	Digital GND.
64	XI	Input	Transmit circuit input. 33.8688 MHz
65	XO	Output	Transmit circuit input. 33.8688 MHz
66	DIN	Input	Digital input signal.
67	DOUT	Output	Digital output signal.
68	PLLBVG	Output	For Internal PLL. Terminal for external capacitor.
69	DGND	—	Digital GND.
70	LRCK	Output	L-ch, R-ch selection output of music data.
71	BCLK	Output	Shift lock of music data.
72	DFCK	Output	Clock for AD/DA converter digital filter. 256 Fs.
73	ADDATA	Input	Sound data input.
74	DADATA	Output	Sound data output.
75*	FEMON	Output	Focus error signal monitor output. Series resistance 10 - 100 kΩ built-in.
76*	TOTMON	Output	Total signal monitor output. Series resistance 10 - 100 kΩ built-in.
77*	TEMON	Output	Tracking error signal monitor output. Series resistance 10 - 100 kΩ built-in.
78	SBCK	Input/Output	DIN subcode read clock. Expansion port 4.
79	SBO	Output	DIN subcode serial data. Expansion port 5.
80	SBSY	Output	DIN subcode block synchronous signal. Expansion port 6.
81	SFSY	Output	DIN subcode frame synchronous signal. Expansion port 7.
82	FOK	Output	Focus OK detection signal. "0": focus OK.
83	SENSE	Output	Servo condition detection signal.
84	COUT	Output	Track cross signal output.
85	MCCK	Output	Clock output for microcomputer.
86	DINTX	Output	Interrupt request output terminal to system computer interface.
87	VDD2	Input	Power supply for interface.
88	DGND	—	Digital GND.
89	RSTX	Input	Chip reset input. Reset by L. (Note)
90	SYD0	Input/Output	Data bus terminal of system computer interface (LSB).
91-96	SYD1-SYD6	Input/Output	Data bus terminal of system computer interface.
97	SYD7	Input/Output	Data bus terminal of system computer interface (MSB).
98	SYWRX	Input	Resister write pulse input of system computer interface.
99	SYRDX	Input	Resister read pulse input of system computer interface.
100	SYRS	Input	Resister selection input of system computer interface.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

Note: Set RSTX to L when turning on the power or after turning on the power.

SD-CX1W

IC1202 RH-iX2474AFZZ: 4Mbit D-RAM (IX2474AF)

Pin No.	Terminal Name	Function
1, 2	DQ0, DQ1	Data input/Data output.
3	\overline{WE}	Write enable.
4	\overline{RAS}	Row address storobe.
5	A9	Address input.
6-9	A0-A3	Address input.
10	VDD	Power (3.3 V).
11-15	A4-A8	Address input.
16	\overline{OE}	Output enable.
17	\overline{CAS}	Column address storobe.
18, 19	DQ2, DQ3	Data input/Data output.
20	VSS	Ground (0 V).

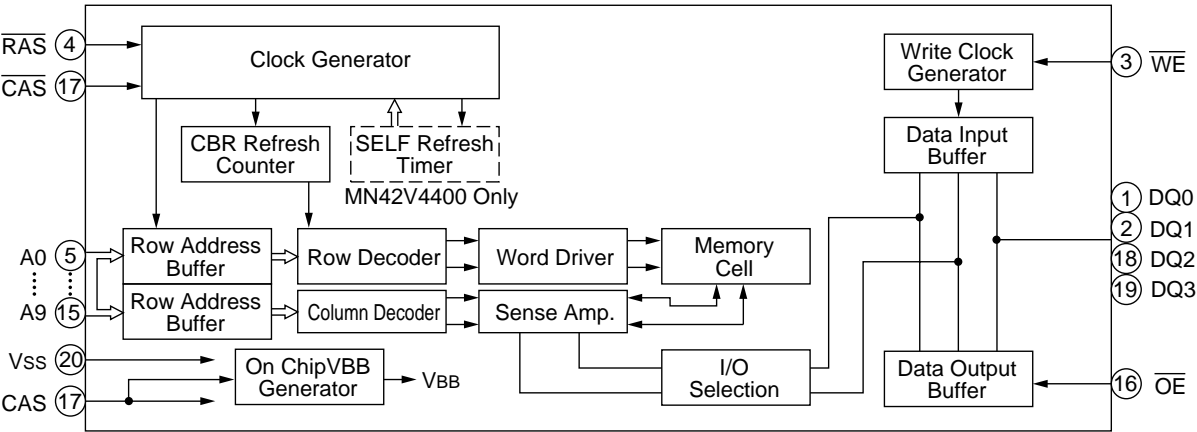


Figure 94-1 BLOCK DIAGRAM OF IC

IC1301 VHiFTD2005/-1: Head Driver (FTD2005)

IC1302 VHiCPH5608/-1: Head Driver (CPH5608)

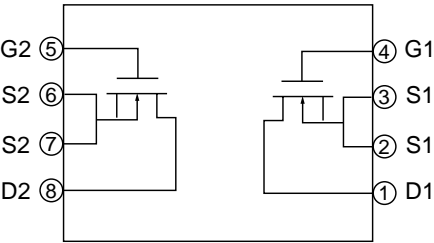


Figure 94-2 BLOCK DIAGRAM OF IC

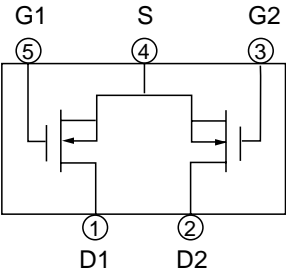


Figure 94-3 BLOCK DIAGRAM OF IC

IC1402 VHi58X2402T-1: EEPROM (58X2402T)

Pin No.	Terminal Name	Function
1-3	A0-A2	Device address.
4	VSS	Ground
5	SDA	Serial data input/output.
6	SCL	Serial clock input.
7	WP	Write protect.
8	VCC	Power supply.



Figure 94-4 BLOCK DIAGRAM OF IC

IC1401 RH-iX0410AWZZ: MD System Microcomputer (IX0410AW) (1/2)

Pin No.	Terminal Name	Input/Output	Function
1	4M/16M	Input	4M/16M DRAM selection input.
2	64M	Input	64M DRAM selection input.
3	LDVAR	Output	LDVAR (laser power adjustment output).
4*	ADJS	Output	ADJS (for automatic adjustment step check).
5	CIN	Input	CIN (track count signal input).
6*	N.C.	—	Not used.
7	UNLOCK	Input	ERR input (UNLOCK of MD LSI monitor PLL).
8	BYTE	Input	GND
9	CNVss	Input	GND
10*	STID OUT	Output	ST-ID output.
11*	SEACH OUT	Output	MD search output.
12	RESET	Input	RESET input.
13*	N.C.	Input	Clock output.
14	Vss	—	GND
15	MCCK	Input	EXTAL (8.4672 MHz).
16	Vcc	Input	+ 3.15 V
17	P85	Input	Input output port P85.
18	DINT	Input	DINT (Interrupt input from MD-LSI).
19	SFSY	Input	Subcode communication frame synchro Interrupt input.
20	ST-ID	Input	ST-ID input (MD-ON).
21	SERCH	Input	CD search input (Synchronous REC interrupt input).
22	MDRMUT	Output	MD RMUT output (MOTOR DRIVER MUTE).
23*	N.C.	Output	Not used.
24	DSENSE	Input	DSENSE (servo sense input from MD-LSI).
25	P-DOWN	Input	P-DOWN (blackout detection).
26	HD ON	Output	HDON (magnetic head power ON/OFF output).
27	EEPRO	Output	EEPROM protect release output.
28	HFON	Output	HFON
29	EEPK	Output	EEPROM serial clock output.
30	EEPD	Input/Output	EEPROM data input output.
31	MD DATA	Output	MD computer data input output.
32	K DATA	Input	System computer data input.
33	DSCK	Input	System computer clock input.
34	DSTB	Output	DSTB (system computer communication possible and during communication)
35*	N.C.	Output	Not used.
36	SBO	Input	Subcode serial data input.
37	SBCK	Output	Subcode communication serial clock output.
38	DISC	Output	DISC
39	R/P	Output	R/P output (REC/PLAY selection).
40	FOK	Input	FOK (focus servo condition monitor input).
41	FLASH L	Input	Flash write selection.
42	SGAIN	Output	SGAIN
43	SYRS	Output	MD LSI resister select signal output.
44	SYRD	Output	SYRD (MD-LSI read signal output).
45	SYWR	Output	SYWR (MD-LSI write signal output).
46	FLASH H	Input	Flash write selection.
47	SYS D7	Input/Output	SYS D7 (data bus 7).
48	SYS D6	Input/Output	SYS D6 (data bus 6).
49	SYS D5	Input/Output	SYS D5 (data bus 5).
50	SYS D4	Input/Output	SYS D4 (data bus 4).
51	SYS D3	Input/Output	SYS D3 (data bus 3).

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

SD-CX1W

IC1401 RH-iX0410AWZZ: MD System Microcomputer (IX0410AW) (2/2)

Pin No.	Terminal Name	Input/Output	Function
52	SYS D2	Input/Output	SYS D2 (data bus 2).
53	SYS D1	Input/Output	SYS D1 (data bus 1.)
54	SYS D0	Input/Output	SYS D0 (data bus 0).
55*	P37	Output	Input output port P37.
56*	P36	Output	Input/output port P36.
57*	P35	Output	Input/output port P35.
58*	P34	Output	Input/output port P34.
59*	P33	Output	Input/output port P33.
60*	P32	Output	Input/output port P32.
61	P31	Input	Input/output port P31.
62	Vcc	Input	+ 3.15 V
63	INNSW	Input	Pick most inner periphery detection input.
64	GND	–	GND
65	L3 DATA	Output	L3 DATA (soft serial communication, 2 mode presence, LSB first).
66	L3 MODE	Output	L3 MODE (soft serial communication, 2 mode presence, LSB first).
67	L3 CLK	Output	L3 CLK (soft serial communication, 2 mode presence, LSB first).
68*	P24	Output	Input output port P24.
69*	P23	Output	Input output port P23.
70	PCNT0	Output	PCNT0 output.
71*	LAST	Output	LAST
72	LD ON	Output	LDON output (H : ON).
73	A/B	Input	ANLPTR output. ADC/DAC selection input.
74	SBSY	Input	Subcode communication block synchro input.
75*	DAP ON	Output	DAPON output (for CK).
76*	DFS0	Output	DFS0 output.
77*	DFS1	Output	DFS1 output.
78	P12	Input	Input output port P12.
79	P11	Input	Input/output port P11.
80	XRST	Output	XRST (system reset output).
81*	AD MUTE	Output	ADMUTE output (for CK).
82	LD+	Output	Loading motor + side control output.
83	LD-	Output	Loading motor - side control output.
84*	MUTE	Output	MUTE output.
85*	RAST	Output	RAST
86*	TEST2	Input	TEST 2
87*	TEST1	Input	TEST 1
88*	TEST0	Input	TEST 0
89	AVCK3	Input	AVCK3 (motor driver power monitor input).
90	AVCK2	Input	AVCK2 (AD/DA section 3.1 V monitor input).
91	AVCK1	Input	AVCK1 (head circuit power monitor input).
92	DTEMP	Input	DTEMP (temperature detection input).
93	MINF	Input	MINF (disc type/REC input/mecha position).
94*	TEST K1	Input	TEST K1
95*	TEST K2	Input	TEST K2
96	GND	–	GND
97*	N.C.	–	Not used.
98	VREF	Input	+ 3.15 V
99	AVcc	Input	+ 3.15 V
100	PR	Input	Playback/recording unit setting input.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC1701 VHiUDA1345/-1: AD/DA Converter (UDA1345)

Pin No.	Terminal Name	Function
1	VSSA(ADC)	AD converter analog ground.
2	VDDA(ADC)	AD converter analog power.
3	VINL	AD converter input (left).
4	Vref(A)	AD converter reference voltage.
5	VINR	AD converter input (right).
6	VADCN	AD converter reference voltage N.
7	VADCP	AD converter reference voltage P.
8*	MC1	Mode control 1 (Pulled-down).
9*	MP1	Multi-purpose pin 1.
10	VDDD	Digital power.
11	VSSD	Digital ground.
12	SYSCLK	System clock 256 fs, 384 fs, 512 fs.
13	MP2	Multi-purpose pin 2.
14	MP3	Multi-purpose pin 3.
15	MP4	Multi-purpose pin 4.
16	BCK	Bit clock input.
17	WS	Word select input.
18	DATAO	Data output.
19	DATAI	Data input.
20*	MP5	Multi-purpose pin 5 (Pulled-down).
21*	MC2	Mode control 2 (Pulled-down).
22	VSSA(DAC)	DA converter analog ground.
23	VDDA(ADC)	DA converter analog power.
24	VOUTR	DA converter output (right).
25	VDDO	Opeamp power.
26	VOUTL	DA converter output (left).
27	VSSO	Opeamp ground.
28	Vref(D)	AD converter reference voltage.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

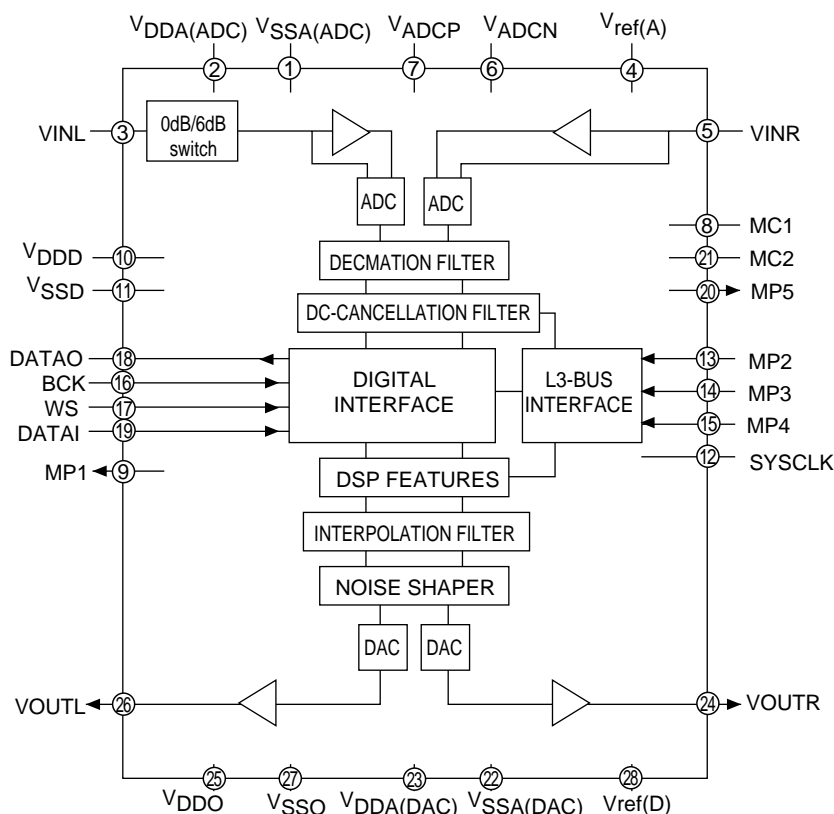
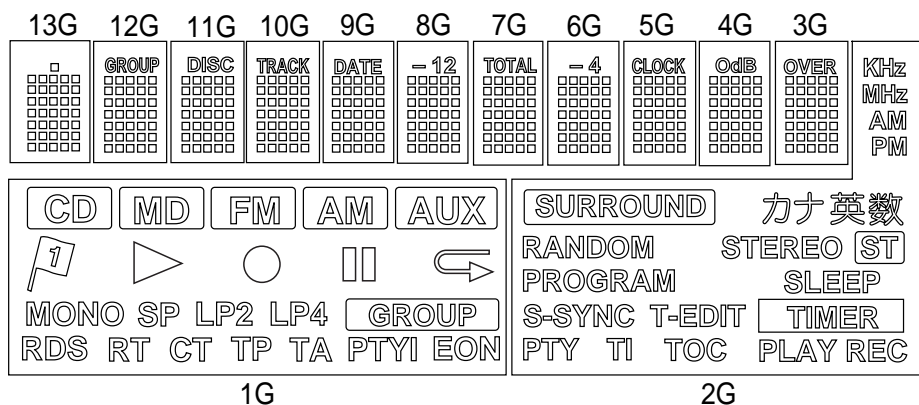


Figure 97 BLOCK DIAGRAM OF IC

FL DISPLAY

FLD01: VVKHNA13LS3-1



1G

2G

1-1	1-2	1-3	1-4	1-5
2-1	2-2	2-3	2-4	2-5
3-1	3-2	3-3	3-4	3-5
4-1	4-2	4-3	4-4	4-5
5-1	5-2	5-3	5-4	5-5
6-1	6-2	6-3	6-4	6-5
7-1	7-2	7-3	7-4	7-5

(3G – 13G)

CONNECTION

PIN No.	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40
CONNECTION	F2	NP	F2	NP	NP	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G	13G	P36	P35

PIN No.	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
CONNECTION	P34	P33	P32	P31	P30	P29	P28	P27	P26	P25	P24	P23	P22	P21	P20	P19	P18	P17	P16	P15

PIN No.	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CONNECTION	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NP	NP	F1	NP	F1

ANODE CONNECTION

	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G	13G		1G	2G	3G – 13G
P1	–	–	OVER	OdB	CLOCK	– 4	TOTAL	–12	DATE	TRACK	DISC	GROUP	□	P22	GROUP	TI	5–1
P2	–	–	1–1	1–1	1–1	1–1	1–1	1–1	1–1	1–1	1–1	1–1	1–1	P23	LP4	TOC	5–2
P3	–	–	1–2	1–2	1–2	1–2	1–2	1–2	1–2	1–2	1–2	1–2	1–2	P24	LP2	PLAY	5–3
P4	–	–	1–3	1–3	1–3	1–3	1–3	1–3	1–3	1–3	1–3	1–3	1–3	P25	SP	REC	5–4
P5	–	–	1–4	1–4	1–4	1–4	1–4	1–4	1–4	1–4	1–4	1–4	1–4	P26	MONO	S-SYNC	5–5
P6	–	–	1–5	1–5	1–5	1–5	1–5	1–5	1–5	1–5	1–5	1–5	1–5	P27	1	T-EDT	6–1
P7	–	–	2–1	2–1	2–1	2–1	2–1	2–1	2–1	2–1	2–1	2–1	2–1	P28	▶	TIMER	6–2
P8	–	–	2–2	2–2	2–2	2–2	2–2	2–2	2–2	2–2	2–2	2–2	2–2	P29	○	PROGRAM	6–3
P9	–	–	2–3	2–3	2–3	2–3	2–3	2–3	2–3	2–3	2–3	2–3	2–3	P30	□	SLEEP	6–4
P10	–	–	2–4	2–4	2–4	2–4	2–4	2–4	2–4	2–4	2–4	2–4	2–4	P31	◀	RANDOM	6–5
P11	–	–	2–5	2–5	2–5	2–5	2–5	2–5	2–5	2–5	2–5	2–5	2–5	P32	CD	STEREO	7–1
P12	–	–	3–1	3–1	3–1	3–1	3–1	3–1	3–1	3–1	3–1	3–1	3–1	P33	MD	ST	7–2
P13	–	–	3–2	3–2	3–2	3–2	3–2	3–2	3–2	3–2	3–2	3–2	3–2	P34	FM	SURROUND	7–3
P14	–	–	3–3	3–3	3–3	3–3	3–3	3–3	3–3	3–3	3–3	3–3	3–3	P35	AM	カナ	7–4
P15	RDS	–	3–4	3–4	3–4	3–4	3–4	3–4	3–4	3–4	3–4	3–4	3–4	P36	AUX	英数	7–5
P16	RT	–	3–5	3–5	3–5	3–5	3–5	3–5	3–5	3–5	3–5	3–5	3–5				
P17	CT	KHz	4–1	4–1	4–1	4–1	4–1	4–1	4–1	4–1	4–1	4–1	4–1				
P18	TP	MHz	4–2	4–2	4–2	4–2	4–2	4–2	4–2	4–2	4–2	4–2	4–2				
P19	TA	AM	4–3	4–3	4–3	4–3	4–3	4–3	4–3	4–3	4–3	4–3	4–3				
P20	PTYI	PM	4–4	4–4	4–4	4–4	4–4	4–4	4–4	4–4	4–4	4–4	4–4				
P21	EON	PTY	4–5	4–5	4–5	4–5	4–5	4–5	4–5	4–5	4–5	4–5	4–5				

SHARP PARTS GUIDE

1-BIT DIGITAL AUDIO SYSTEM

SD-CX1W(BL) MODEL SD-CX1W(GR)

SD-CX1W 1-Bit Digital Audio System consisting of SD-CX1W (main unit) and CP-CX1W (speaker system).

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Explanation of capacitors/resistors parts codes

Capacitors

VCC Ceramic type
VCK Ceramic type
VCT Semiconductor type
VC •• MF Cylindrical type (without lead wire)
VC •• MN Cylindrical type (without lead wire)
VC •• TV Square type (without lead wire)
VC •• TQ Square type (without lead wire)
VC •• CY Square type (without lead wire)
VC •• CZ Square type (without lead wire)
VC J .. The 13th character represents capacity difference.
("J" $\pm 5\%$, "K" $\pm 10\%$, "M" $\pm 20\%$, "N" $\pm 30\%$,
"C" ± 0.25 pF, "D" ± 0.5 pF, "Z" $+80-20\%$.)

If there are no indications for the electrolytic capacitors, error is $\pm 20\%$.

Resistors

VRD Carbon-film type
VRS Carbon-film type
VRN Metal-film type
VR •• MF Cylindrical type (without lead wire)
VR •• MN Cylindrical type (without lead wire)
VR •• TV Square type (without lead wire)
VR •• TQ Square type (without lead wire)
VR •• CY Square type (without lead wire)
VR •• CZ Square type (without lead wire)
VR J .. The 13th character represents error.
("J" $\pm 5\%$, "F" $\pm 1\%$, "D" $\pm 0.5\%$.)

If there are no indications for other parts, the resistors are $\pm 5\%$ carbon-film type.

NOTE:

Parts marked with “⚠” are important for maintaining the safety of the set.

Be sure to replace parts with specified ones for maintaining the safety and performance of the set.

SD-CX1W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
SD-CX1W				
INTEGRATED CIRCUITS				
IC1	VHILA6558+-1	J	AQ	Focus/Tracking/Spin/Sled Driver, LA6558
IC2	VHITA2147F/-1	J	AM	Servo Pre Amp.,TA2147F
IC3	VHITC9490F/-1	J	AX	Servo/Signal Control,TC9490F
IC4	VHI74VHC08F-1	J	AE	Invertor,74VHC08F
IC101	VHIKIA358P+-1	J	AE	IC Ope Amp.,KIA358P
IC302	VHILC72131/-1	J	AP	PLL Controller,LC72131
IC303	VHILA1832S/-1	J	AN	FM IF Det./FM Mpx./AM IF, LA1832S
IC800	VHIKIA7805AP1	J	AF	Voltage Regulator,KIA7805AP
IC801	VHIKIA7812AP1	J	AF	Voltage Regulator,KIA7812AP
IC802	VHIKIA7806AP1	J	AF	Voltage Regulator,KIA7806AP
IC803	VHIKIA7812AP1	J	AF	Voltage Regulator,KIA7812AP
IC804	VHIKIA7805AP1	J	AF	Voltage Regulator,KIA7805AP
IC805	VHIAN78L05/-1	J	AE	Voltage Regulator,AN78L05
IC806	VHIKIA7805AP1	J	AF	Voltage Regulator,KIA7805AP
IC1101	VHIIR3R58M/-1	J	AM	RF Signal Processor,IR3R58M
IC1201	VHILR37816A-1	J	BQ	Endec/Atrac,LA37816A
IC1202	RH-IX2474AFZZ	J	BF	4Mbit D-RAM,IX2474AF
IC1300	VHI74ACT02T-1	J	AE	Head Driver,74ACT02T
IC1301	VHIFTD2005/-1	J	AG	Head Driver,FTD2005
IC1302	VHICPH5608/-1	J	AH	Head Driver,CPH5608
IC1401	RH-IX0410AWZZ	J	AY	MD System Microcomputer, IX0410AW
IC1402	VHI58X2402T-1	J	AF	EEPROM,58X2402T
IC1601	VHIM56788FP-1	J	AX	Motor Driver,M56788FP
IC1701	VHIUDA1345/-1	J	AU	AD/DA Converter,UDA1345
IC1702	VHINJM431U/-1	J	AE	Regulator,NJM431U
IC1801	VHIXC62EP32-1	J	AE	Regulator,XC62EP32
IC1802	VHIXC62FP26P1	J	AG	Regulator,XC62FP26P
ICA100	RH-IX2815AFZZ	J	AV	1Bit AD Converter,IX2815AF
ICA101~104	VHIHIP2100/-1	J	AQ	Gate Driver,HIP2100
ICA105	VHINJM78M9D-1	J	AG	Voltage Regulator,NJM78M9D
ICA110	VHITC74AC8T-1	J	AH	Quad 2 Input and Gate, TC74AC8T
ICD01	RH-IX0376AWZZ	J	AX	System Microcomputer, IX0376AW
ICD02,03	VHIBU2092F/-1	J	AM	Input/Output Expander,BU2092F
ICD04	VHIPST9140/-1	J	AG	Reset,PST9140
ICP01	VHINJM4565M-1	J	AC	Pre Amp.,NJM4565M
ICS01	VHIKIA4558F-1	J	AF	Pre Amp.,KIA4558F
ICU01	VHILC75341M-1	J	AM	Audio Processor,LC75341M
ICV98,99	VHIKIA4558P-1	J	AC	Ope Amp.,KIA4558P
TRANSISTORS				
Q1	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q2	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q4	VSKRC104M/-1	J	AC	Digital,NPN,KRC104 M
Q5	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q360	VS2SB562-C/-1	J	AD	Silicon,PNP,2SB562 C
Q371	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q800	VSKTA1023Y/-1	J	AE	Silicon,PNP,KTA1023 Y
Q801	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q802	VSKTA1271Y/-1	J	AC	Silicon,PNP,KTA1271 Y
Q803	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q900,901	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q1402	VSUN2113///-1	J	AB	Digital,PNP,UN2113
Q1403	VSUN2213///-1	J	AB	Digital,NPN,UN2213
Q1501	VSUN2214///-1	J	AB	Digital,NPN,UN2214
Q1700	VS2SD601AR/-1	J	AC	Silicon,NPN,2SD601 AR
Q1701	VSUN2213///-1	J	AB	Digital,NPN,UN2213
Q1702	VS2SA1162G/-1	J	AB	Silicon,PNP,2SA1162 G
Q1800	VSUN2214///-1	J	AB	Digital,NPN,UN2214
Q1801	VS2SA1162G/-1	J	AB	Silicon,PNP,2SA1162 G
Q1802	VSUN2214///-1	J	AB	Digital,NPN,UN2214
Q1803	VSUN221N///-1	J	AB	Digital,NPN,UN221 N
Q1804	VS2SB1205+-1	J	AF	Silicon,PNP,2SB1205
Q1805	VS2SA1314C/-1	J	AD	Silicon,PNP,2SA1314 C
Q1806	VSUN221N///-1	J	AB	Digital,NPN,UN221 N
Q1807	VS2SD601AR/-1	J	AC	Silicon,NPN,2SD601 AR
QA100,101	VSSLA5001+-1	J	AT	FET,SLA5001
QA102	VSKRA225S+-1	J	AD	Digital,PNP,KRA225 S
QA103	VSKRC102S/-1	J	AB	Digital,NPN,KRC102 S
QD01	VSKRC107M/-1	J	AC	Digital,NPN,KRC107 M
QD03~05	VSKRA107M/-1	J	AE	Digital,PNP,KRA107 M

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
QD06	VSKRC104M/-1	J	AC	Digital,NPN,KRC104 M
QD07	VSKRC107M/-1	J	AC	Digital,NPN,KRC107 M
QD08	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
QD09	VSKRA107M/-1	J	AE	Digital,PNP,KRA107 M
QD10	VSKRC104M/-1	J	AC	Digital,NPN,KRC104 M
QP02	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
QP03,04	VS2SC2878B/-1	J	AC	Silicon,NPN,2SC2878 B
QP05	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
QP06	VSKRA107M/-1	J	AE	Digital,PNP,KRA107 M
QP07	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
QP08	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
QP09	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
QP10	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
QS01	VSKRA107M/-1	J	AE	Digital,PNP,KRA107 M
QS02	VS2SK246GR/-1	J	AB	FET,2SK246 GR
QU01	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
QV87,88	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
QV89	VSKRC104M/-1	J	AC	Digital,NPN,KRC104 M
QV90	VSKTA1271Y/-1	J	AC	Silicon,PNP,KTA1271 Y
QV91	VSKTC3203Y/-1	J	AC	Silicon,NPN,KTC3203 Y
QV92	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
QV93,94	VSKRC107M/-1	J	AC	Digital,NPN,KRC107 M
QV95~99	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
DIODES				
D2	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D301~308	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D352	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D800	VHDS4B03G+-1	J	AH	Silicon,TS4B03G
D801~804	VHD2A02M+++X	J	AC	Silicon,2A02M
D805~809	VHDDS1N404S-1	J	AB	Silicon,DS1N404S
D810	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D811,812	VHDDS1N404S-1	J	AB	Silicon,DS1N404S
D813~817	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D819~822	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D823	VHDDS1N404S-1	J	AB	Silicon,DS1N404S
D826	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
△ D900~903	VHDDS1N404S-1	J	AB	Silicon,DS1N404S
D904	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
D1300	VHDSBE803/-1	J	AD	Silicon,SBE803
D1401	VHDSB00703Q-1	J	AB	Silicon,SB00703Q
D1402	VHD1SS355/-1	J	AB	Silicon,1SS355
DA100~107	VHDKDS160/-1	J	AB	Silicon,KDS160
DA108,109	VHD1SS362+-1	J	AD	Silicon,1SS362
DA112~119	VHDSFPW56+-1	J	AE	Silicon,SFPW56
DA126~129	VHD1SS361/-1	J	AB	Silicon,1SS361
DA130	VHDKDS160/-1	J	AB	Silicon,KDS160
DA131	VHD11ES4TB5-1	J	AA	Silicon,11ES4TB5
DA132	VHDKDS160/-1	J	AB	Silicon,KDS160
DD01~08	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
DP01,02	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
DP03~06	VHD11ES1///-1	J	AB	Silicon,11ES1
DS01	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
DT31	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
DU01	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
DU05,06	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
DV87~93	VHDDS1SS133-1	J	AB	Silicon,DS1SS133
LEDD01	RUNTK3503AWS1	J	AZ	LED,Red/Green/Blue, STM515AS
LEDD02	VHP2647RT49-1	J	AD	LED,Red,2647RT49
LEDD07,08	VHP4204UYT4-1	J	AD	LED,Yellow,4204UYT4
LEDD09,10	VHP4204UGT4-1	J	AD	LED,Green,4204UGT4
ZD1	VHEDZ5R6BSB-1	J	AC	Zener,5.6V,DZ5.6BSB
ZD101	VHEDZ6R2BSB-1	J	AC	Zener,6.2V,DZ6.2BSB
ZD351	VHEDZ5R1BSB-1	J	AC	Zener,5.1V,DZ5.1BSB
ZD800	VHEDZ330BSD-1	J	AC	Zener,33V,DZ33BSD
ZD801	VHEDZ5R1BSB-1	J	AC	Zener,5.1V,DZ5.1BSB
ZD802	VHEDZ5R1BSA-1	J	AB	Zener,5.1V,DZ5.1BSA
ZD803	VHEDZ6R2BSB-1	J	AC	Zener,6.2V,DZ6.2BSB
ZD804	VHEDZ130BSA-1	J	AC	Zener,13V,DZ13BSA
ZD900,901	VHEDZ160BSA-1	J	AD	Zener,16V,DZ16BSA
ZDA110	VHEMA8051M/-1	J	AC	Zener,MA8051M
ZDA111	VHE02DZ120+-1	J	AC	Zener,12V,02DZ12
ZDU02	VHEDZ100BSB-1	J	AB	Zener,10V,DZ10BSB
ZDV98	VHEDZ6R2BSA-1	J	AB	Zener,6.2V,DZ6.2BSA
FILTERS				
CF302	RFILF0124AFZZ	J	AD	FM IF,10.7 MHz
CF351	RFILF0003AWZZ	J	AK	FM IF

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CF352	RFILA0009AWZZ	J	AE	AM IF	C12	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic
TRANSFORMERS					C13	VCKYPA1HF473Z	J	AB	0.047 μF,50V
T302	RCILA0062AWZZ	J	AC	AM Antenna	C14	VCCCCY1HH4R0C	J	AA	4 pF (CH),50V
T306	RCILB0066AWZZ	J	AD	AM Oscillation	C15	VCCCCY1HH270J	J	AA	27 pF (CH),50V
T351	RCIL10019AWZZ	J	AD	AM IF	C16	VCCCCY1HH220J	J	AA	22 pF (CH),50V
△ T900	RTRNP0266AWZZ	J	AQ	Power,Sub	C17,18	VCFYHA1HA104J	J	AB	0.1 μF,50V,Thin Film
△ T901	RTRNP0334AWZZ	J	BB	Power,Main	C19	VCKYCY1HB471K	J	AA	470 pF,50V
COILS					C20	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic
L2,3	VP-DH2R2K0000	J	AB	2.2 μH,Peaking	C21,22	VCKYCY1EF223Z	J	AB	0.022 μF,25V
L4	VP-XH2R2K0000	J	AB	2.2 μH,Choke	C23	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic
L5	RCILC0353AFZZ	J	AB	Tip Solid Induction,100mA	C25	VCKYCY1HB682K	J	AA	0.0068 μF,50V
L342	VP-DH2R2K0000	J	AB	2.2 μH,Peaking	C26	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic
L351,352	VP-DH101K0000	J	AB	100 μH,Choke	C27	VCCCCY1HH470J	J	AA	47 pF (CH),50V
L353	VP-DH102K0000	J	AB	1 mH,Choke	C28	VCEAZA1CW476M	J	AB	47 μF,16V,Electrolytic
△ L900	RCILZ0021AWZZ	J	AF	Line Filter	C29	VCKYCY1EF223Z	J	AB	0.022 μF,25V
L1100	VPBNNR47K0000	J	AC	0.47 μH	C30	VCKYCY1HB153K	J	AA	0.015 μF,50V
L1101	VPBNN100K0000	J	AC	10 μH	C31	VCKYCY1HB103K	J	AA	0.01 μF,50V
L1200	VPBNN4R7K0000	J	AC	4.7 μH	C32	VCKYCY1HB272K	J	AA	0.0027 μF,50V
L1201,1202	VPBNNR47K0000	J	AC	0.47 μH	C33	VCKYCY1HB332K	J	AA	0.0033 μF,50V
L1300	RCILC0358AFZZ	J	AC	4.7 μH,Choke	C34,35	VCKYCY1CB333K	J	AA	0.033 μF,16V
L1501	RCILZ0016AWZZ	J	AD	1 μH	C36	VCCCCY1HH221J	J	AA	220 pF (CH),50V
L1502	VPBNN4R7K0000	J	AC	4.7 μH	C37	VCKYCY1CB473K	J	AA	0.047 μF,16V
L1551,1552	VPBNNR47K0000	J	AC	0.47 μH	C38	VCKYCY1HB681K	J	AA	680 pF,50V
L1554	VPBNNR47K0000	J	AC	0.47 μH	C39	VCKYCY1CB473K	J	AA	0.047 μF,16V
L1600	RCILZ0016AWZZ	J	AD	1 μH	C40,41	VCKYCY1CB683K	J	AB	0.068 μF,16V
L1701,1702	VPBNN100K0000	J	AC	10 μH	C42	VCEAZA1CW476M	J	AB	47 μF,16V,Electrolytic
LA100	RCILZ0031AWZZ	J	AM	Coil,20 μH,10%	C43	VCKYCY1EF223Z	J	AB	0.022 μF,25V
LA102	RCILZ0031AWZZ	J	AM	Coil,20 μH,10%	C44	VCKYCY1CB473K	J	AA	0.047 μF,16V
LA104	RCILZ0031AWZZ	J	AM	Coil,20 μH,10%	C46	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic
LA106	RCILZ0031AWZZ	J	AM	Coil,20 μH,10%	C47	VCKYCY1EF223Z	J	AB	0.022 μF,25V
LA124	92LBEAD1782BT	J	AC	Ferrite Core	C48,49	VCCCCY1HH150J	J	AA	15 pF (CH),50V
LA127	RCORF0020AWZZ	J	AD	Ferrite Core	C50	VCKYCY1EF223Z	J	AB	0.022 μF,25V
LA130~133	RCORF0019AWZZ	J	AD	Ferrite Core	C51	VCCSPA1HL100J	J	AA	10 pF,50V
LD02~04	VP-DH2R2K0000	J	AB	2.2 μH,Peaking	C52	VCKYCY1EF223Z	J	AB	0.022 μF,25V
LFA01,02	RCILZ0030AWZZ	J	AK	Coil,6.75 μH	C53	VCFYHA1HA104J	J	AB	0.1 μF,50V,Thin Film
LFA03,04	RCILZ0029AWZZ	J	AK	Coil,2.6 μH	C60,61	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic
LFA05,06	RCILZ0030AWZZ	J	AK	Coil,6.75 μH	C62	VCKYCY1EF223Z	J	AB	0.022 μF,25V
VARIABLE RESISTORS					C63	VCEAEA1CW106M	J	AB	10 μF,16V,Electrolytic
VR351	RVR-M0026AWZZ	J	AC	10 kohm (B),Semi-VR [FM Mute Level]	C64	VCKYCY1EF223Z	J	AB	0.022 μF,25V
VRA100	RVR-M0026AWZZ	J	AC	10 kohm (B),Semi-VR [Offset Output L-CH]	C66,67	VCKYCY1EF223Z	J	AB	0.022 μF,25V
VRA101	RVR-M0026AWZZ	J	AC	10 kohm (B),Semi-VR [Offset Output R-CH]	C68	VCKYPA1HF223Z	J	AB	0.022 μF,50V
VARIABLE CAPACITOR					C69,70	VCEAEA1CW106M	J	AB	10 μF,16V,Electrolytic
VD301	VHCSVC348S/-1	J	AK	Variable Capacitance,SVC348S	C71,72	VCEAEA1CW476M	J	AB	47 μF,16V,Electrolytic
VIBRATORS					C73,74	VCKYCY1EF104Z	J	AA	0.1 μF,25V
CXA100	RCRSP0021AWZZ	J	AG	Crystal,11.2896 MHz	C76,77	VCKYCY1HB102K	J	AA	0.001 μF,50V
X1	RCRSP0005AWZZ	J	AF	Crystal,16.9344 MHz	C101~103	VCKYCY1EF104Z	J	AA	0.1 μF,25V
X351	92LCRSTL1425A	J	AF	Crystal,456 kHz	C104	VCKYCY1EF223Z	J	AB	0.022 μF,25V
X352	RCRSP0002AWZZ	J	AH	Crystal,4.5 MHz	C105	VCKYCY1EF104Z	J	AA	0.1 μF,25V
XL1201	RCRSC0001AWZZ	J	AL	Crystal,33.8688 MHz	C106,107	VCEAZA1EW476M	J	AB	47 μF,25V,Electrolytic
XLD01	RCRSP0009AWZZ	J	AK	Crystal,8.3886 MHz	C301	VCKYBT1HB102K	J	AA	0.001 μF,50V
THERMISTOR					C310,311	VCCCCY1HH101J	J	AA	100 pF (CH),50V
△ PS801	RH-QX0006AWZZ	J	AE	Posistor,4.7 ohms	C312	VCKYCY1HB102K	J	AA	0.001 μF,50V
CAPACITORS					C321	VCEAZA1CW107M	J	AC	100 μF,16V,Electrolytic
C1	VCKYCY1EF223Z	J	AB	0.022 μF,25V	C323	VCTYBT1EF223Z	J	AA	0.022 μF,25V
C2	RC-EZD476AF1C	J	AC	47 μF,16V,Electrolytic	C324	VCEAZA1HW474M	J	AB	0.47 μF,50V,Electrolytic
C4	RC-EZD107AF1A	J	AB	100 μF,10V,Electrolytic	C330	VCCUBT1HJ150J	J	AA	15 pF (UJ),50V
C5	VCKYCY1HB102K	J	AA	0.001 μF,50V	C331	VCKYPA1HF473Z	J	AB	0.047 μF,50V
C6	VCFYHA1HA334J	J	AC	0.33 μF,50V,Thin Film	C332	VCKYCY1EF223Z	J	AB	0.022 μF,25V
C7,8	RC-EZD334AF1H	J	AB	0.33 μF,50V,Electrolytic	C334	VCCUBT1HJ180J	J	AA	18 pF (UJ),50V
C9	VCKYCY1EF223Z	J	AB	0.022 μF,25V	C335	VCKYCY1HB331K	J	AA	330 pF,50V
C10	VCEAZA1AW477M	J	AC	470 μF,10V,Electrolytic	C337	VCKYCY1EF223Z	J	AB	0.022 μF,25V
C11	VCKYCY1EF223Z	J	AB	0.022 μF,25V	C338	VCTYBT1CX222M	J	AA	0.0022 μF,16V
					C339	VCCCCY1HH101J	J	AA	100 pF (CH),50V
					C341,342	VCKYCY1EF223Z	J	AB	0.022 μF,25V
					C343	VCCCCY1HH330J	J	AA	33 pF (CH),50V
					C345~347	VCKYCY1EF223Z	J	AB	0.022 μF,25V
					C350	VCKYPA1HF473Z	J	AB	0.047 μF,50V
					C351	VCKYCY1EF223Z	J	AB	0.022 μF,25V
					C352	VCEAEA1CW106M	J	AB	10 μF,16V,Electrolytic
					C353,354	VCKYCY1EF223Z	J	AB	0.022 μF,25V
					C355	VCCCCY1HH220J	J	AA	22 pF (CH),50V
					C356	VCKYCY1HB102K	J	AA	0.001 μF,50V
					C357	VCEAEA1HW225M	J	AB	2.2 μF,50V,Electrolytic
					C358	VCEAEA1HW105M	J	AB	1 μF,50V,Electrolytic
					C361	VCKYCY1EF223Z	J	AB	0.022 μF,25V
					C362	VCEAEA1HW335M	J	AB	3.3 μF,50V,Electrolytic
					C363	VCKYCY1EF223Z	J	AB	0.022 μF,25V
					C364	VCEAEA1CW106M	J	AB	10 μF,16V,Electrolytic
					C365	VCTYPA1CX223K	J	AA	0.022 μF,16V
					C366	VCKYCY1HB102K	J	AA	0.001 μF,50V
					C367,368	VCEAEA1HW105M	J	AB	1 μF,50V,Electrolytic
					C370~372	VCEAEA1HW105M	J	AB	1 μF,50V,Electrolytic

SD-CX1W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION	NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
C373,374	VCTYPAC1CX223K	J	AA	0.022 μF,16V	C1211	VCKYCY1EF104Z	J	AA	0.1 μF,25V
C376	VCTYBT1EF223Z	J	AA	0.022 μF,25V	C1230	VCKYTV1CF105Z	J	AB	1 μF,16V
C377	VCKYCY1EF223Z	J	AB	0.022 μF,25V	C1261~1265	VCCCCY1HH221J	J	AA	220 pF (CH),50V
C380	VCEAEA1CW106M	J	AB	10 μF,16V,Electrolytic	C1266	VCCCCY1HH220J	J	AA	22 pF (CH),50V
C381	VCCCCY1HH120J	J	AA	12 pF (CH),50V	C1300	VCCCTV1HH470J	J	AA	47 pF (CH),50V
C382	VCCCCY1HH150J	J	AA	15 pF (CH),50V	C1301	VCKYCY1CB223K	J	AA	0.022 μF,16V
C384	VCKYBT1HB102K	J	AA	0.001 μF,50V	C1302	RC-KZ0002AWZZ	J	AE	10 μF,10V
C385	VCTYPAC1CX103K	J	AA	0.01 μF,16V	C1303	VCKYTV1CF105Z	J	AB	1 μF,16V
C386	VCKYBT1HB331K	J	AA	330 pF,50V	C1304	VCCCTV1HH221J	J	AA	220 pF (CH),50V
C387	VCKYCY1CB473K	J	AA	0.047 μF,16V	C1403,1404	VCKYCY1HF103Z	J	AB	0.01 μF,50V
C389,390	VCKYCY1HB102K	J	AA	0.001 μF,50V	C1405,1406	VCKYCY1HB681K	J	AA	680 pF,50V
C391	VCEAZA1EW476M	J	AB	47 μF,25V,Electrolytic	C1407	VCKYCY1EF104Z	J	AA	0.1 μF,25V
C392	VCKYCY1HB102K	J	AA	0.001 μF,50V	C1409	VCKYTV1CF105Z	J	AB	1 μF,16V
C393	VCEAEA1HW105M	J	AB	1 μF,50V,Electrolytic	C1501	VCKYTV1CF105Z	J	AB	1 μF,16V
C394	VCEAEA1EW476M	J	AA	47 μF,25V,Electrolytic	C1502	VCCCTV1HH331J	J	AA	330 pF (CH),50V
C395	VCKYCY1EF223Z	J	AB	0.022 μF,25V	C1503	VCKYTV1CB334K	J	AC	0.33 μF,16V
C396	VCEAEA1AW107M	J	AB	100 μF,10V,Electrolytic	C1505	VCKYCY1EF104Z	J	AA	0.1 μF,25V
C397	VCKYCY1EF223Z	J	AB	0.022 μF,25V	C1506	VCCCCY1HH101J	J	AA	100 pF (CH),50V
C398	VCEAZA1AW107M	J	AB	100 μF,10V,Electrolytic	C1507	VCKYCY1EF104Z	J	AA	0.1 μF,25V
C399	VCKYCY1EF223Z	J	AB	0.022 μF,25V	C1509	VCCCCY1HH101J	J	AA	100 pF (CH),50V
C800,801	VCFYHA1HA224J	J	AC	0.22 μF,50V,Thin Film	C1602	VCCCCY1HH471J	J	AA	470 pF (CH),50V
C802,803	VQYKA1HM473K	J	AB	0.047 μF,50V,Mylar	C1603	VCCCCY1HH681J	J	AC	680 pF (CH),50V
C804,805	RC-EZ0050AWZZ	J	AK	3300 μF,25V,Electrolytic	C1606	RC-KZ0002AWZZ	J	AE	10 μF,10V
C806	VCEAZV1EW108M	J	AE	1000 μF,25V,Electrolytic	C1607	VCKYTV1CF105Z	J	AB	1 μF,16V
C807	VCEAZW1EW478M	J	AK	4700 μF,25V,Electrolytic	C1610	RC-KZ0003AWZZ	J	AE	4.7 μF,10V
C808	VCEAZA1HW107M	J	AC	100 μF,50V,Electrolytic	C1611	VCKYCY1HB472K	J	AA	0.0047 μF,50V
C809	VCEAZV1HW477M	J	AE	470 μF,50V,Electrolytic	C1613	VCKYCY1CB103K	J	AA	0.01 μF,16V
C810	VCEAZA1HW107M	J	AC	100 μF,50V,Electrolytic	C1616	VCEAPS107AF1A	J	AD	100 μF,10V,Electrolytic
C811	VCEAZA1JW476M	J	AC	47 μF,63V,Electrolytic	C1619	VCCCCY1HH331J	J	AA	330 pF (CH),50V
C812,813	VCEAZA1HW476M	J	AB	47 μF,50V,Electrolytic	C1655	VCKYCY1HF103Z	J	AB	0.01 μF,50V
C814	VCEAZA1VW107M	J	AC	100 μF,35V,Electrolytic	C1700,1701	VCEAPS476AF0G	J	AC	47 μF,4V,Electrolytic
C815	VCEAEA1HW105M	J	AB	1 μF,50V,Electrolytic	C1702	VCKYCY1HB102K	J	AA	0.001 μF,50V
C816	VCKYPA1HF223Z	J	AB	0.022 μF,50V	C1703	VCKYCY1EF104Z	J	AA	0.1 μF,25V
C817	VQYKA1HM473K	J	AB	0.047 μF,50V,Mylar	C1704	VCEAPS476AF0G	J	AC	47 μF,4V,Electrolytic
C818	VCEAZA0JW108M	J	AC	1000 μF,6.3V,Electrolytic	C1705	VCKYCY1EF104Z	J	AA	0.1 μF,25V
C819	VCEAEA1HW105M	J	AB	1 μF,50V,Electrolytic	C1706	VCKYTV1HF103Z	J	AA	0.01 μF,50V
C820	VCTYMN1EF223Z	J	AA	0.022 μF,25V	C1707	VCKYTV1CF105Z	J	AB	1 μF,16V
C821	VCFYHA1HA473J	J	AB	0.047 μF,50V,Thin Film	C1708,1709	VCKYTV1HF103Z	J	AA	0.01 μF,50V
C822	VCEAEA1HW105M	J	AB	1 μF,50V,Electrolytic	C1710	RC-EZ1620AFZZ	J	AC	10 μF,16V,Electrolytic
C823	VCTYMN1EF223Z	J	AA	0.022 μF,25V	C1711	VCEAPS476AF0G	J	AC	47 μF,4V,Electrolytic
C824	VCFYHA1HA473J	J	AB	0.047 μF,50V,Thin Film	C1712	RC-EZ1620AFZZ	J	AC	10 μF,16V,Electrolytic
C825	VCEAZA1CW106M	J	AC	10 μF,16V,Electrolytic	C1713	VCKYTV1HF103Z	J	AA	0.01 μF,50V
C826	VCEAEA1HW105M	J	AB	1 μF,50V,Electrolytic	C1714	VCKYTV1CF105Z	J	AB	1 μF,16V
C827	VCTYMN1EF223Z	J	AA	0.022 μF,25V	C1715	VCKYTV1CB104K	J	AA	0.1 μF,16V
C828	VCFYHA1HA473J	J	AB	0.047 μF,50V,Thin Film	C1716	VCEAPS476AF0G	J	AC	47 μF,4V,Electrolytic
C829	VCEAZA1CW106M	J	AC	10 μF,16V,Electrolytic	C1741	VCCCCY1HH681J	J	AC	680 pF (CH),50V
C830	VCEAZA1EW476M	J	AB	47 μF,25V,Electrolytic	C1750	VCCCCY1HH681J	J	AC	680 pF (CH),50V
C831	VCEAEA1HW105M	J	AB	1 μF,50V,Electrolytic	C1800	VCEAPS227AF0G	J	AC	220 μF,4V,Electrolytic
C832	VCTYMN1EF223Z	J	AA	0.022 μF,25V	C1801,1802	RC-KZ0002AWZZ	J	AE	10 μF,10V
C833	VCFYHA1HA473J	J	AB	0.047 μF,50V,Thin Film	C1803	VCEAPS107AF1A	J	AD	100 μF,10V,Electrolytic
C834	VCEAEA1HW105M	J	AB	1 μF,50V,Electrolytic	C1804	VCKYTV1CF225Z	J	AB	2.2 μF,16V
C835	VCTYMN1EF223Z	J	AA	0.022 μF,25V	C1805,1806	VCKYTV1CF105Z	J	AB	1 μF,16V
C836	VQYKA1HM473K	J	AB	0.047 μF,50V,Mylar	CA100,101	VCCCCY1HH180J	J	AA	18 pF (CH),50V
C837	VCEAEA1HW105M	J	AB	1 μF,50V,Electrolytic	CA102~104	VCKYCY1EF104Z	J	AA	0.1 μF,25V
C838	VCTYMN1EF223Z	J	AA	0.022 μF,25V	CA105,106	RC-EZ0007AWZZ	J	AF	10 μF,10V,Electrolytic
C839	VQYKA1HM473K	J	AB	0.047 μF,50V,Mylar	CA107	VCKYCY1EF104Z	J	AA	0.1 μF,25V
C840,841	RC-EZ0050AWZZ	J	AK	3300 μF,25V,Electrolytic	CA108,109	RC-EZ0051AWZZ	J	AC	10 μF,10V,Electrolytic
△C900	RC-KZ001LAWZZ	J	AB	0.0047 μF,250V,Ceramic	CA110	VCKYCY1EF104Z	J	AA	0.1 μF,25V
C901,902	VQYKA1HM473K	J	AB	0.047 μF,50V,Mylar	CA111	RC-EZD337AF0J	J	AC	330 μF,6.3V,Electrolytic
C903	VCEAZA1VW477M	J	AD	470 μF,35V,Electrolytic	CA112~115	VCKYTV1EB105K	J	AD	1 μF,25V
C1100	RC-KZ0003AWZZ	J	AE	4.7 μF,10V	CA116	VCKYCY1CF224Z	J	AB	0.22 μF,16V
C1107	VCKYCY1CB223K	J	AA	0.022 μF,16V	CA117	VCKYTV1HB224K	J	AC	0.22 μF,50V
C1110,1111	VCKYTV1CF105Z	J	AB	1 μF,16V	CA118,119	VCKYCY1CF224Z	J	AB	0.22 μF,16V
C1112	VCCCCY1HH5R0C	J	AA	5 pF (CH),50V	CA120	VCKYTV1HB224K	J	AC	0.22 μF,50V
C1113	VCKYTV0JB105K	J	AD	1 μF,6.3V	CA121	VCKYCY1CF224Z	J	AB	0.22 μF,16V
C1114,1115	VCKYCY1CB104K	J	AB	0.1 μF,16V	CA122~125	RC-KZ0007AWZZ	J	AG	1.0 μF,50V,Electrolytic
C1116	VCKYTV0JB105K	J	AD	1 μF,6.3V	CA126	VCKYCY1CF224Z	J	AB	0.22 μF,16V
C1117	VCKYTV1CF105Z	J	AB	1 μF,16V	CA127	VCKYTV1HB224K	J	AC	0.22 μF,50V
C1118,1119	VCKYTV1CB474K	J	AC	0.47 μF,16V	CA128,129	VCKYCY1CF224Z	J	AB	0.22 μF,16V
C1121	VCKYTV1CB224K	J	AB	0.22 μF,16V	CA130	VCKYTV1HB224K	J	AC	0.22 μF,50V
C1122	VCKYTV1CF105Z	J	AB	1 μF,16V	CA131	VCKYCY1CF224Z	J	AB	0.22 μF,16V
C1123	VCKYCY1CB104K	J	AB	0.1 μF,16V	CA132~135	RC-KZ0007AWZZ	J	AG	1.0 μF,50V,Electrolytic
C1124	VCKYTV1CB104K	J	AA	0.1 μF,16V	CA142,143	VCFYDA1HA155J	J	AG	1.5 μF,50V,Thin Film
C1125	VCKYTV1CF105Z	J	AB	1 μF,16V	CA150,151	VCFYDA1HA155J	J	AG	1.5 μF,50V,Thin Film
C1200	VCKYTV1CF105Z	J	AB	1 μF,16V	CA152	VCCCCY1HH120J	J	AA	12 pF (CH),50V
C1201	RC-KZ0002AWZZ	J	AE	10 μF,10V	CA153,154	VCCCCY1HH180J	J	AA	18 pF (CH),50V
C1202,1203	VCKYTV1CF105Z	J	AB	1 μF,16V	CA155	VCCCCY1HH120J	J	AA	12 pF (CH),50V
C1205	VCKYTV1CF105Z	J	AB	1 μF,16V	CA159	VCE9GA1EW107M	J	AE	100 μF,25V,Electrolytic, Non-Polar
C1206	VCKYCY1EF104Z	J	AA	0.1 μF,25V	CA160	VCEAZA1EW107M	J	AB	100 μF,25V,Electrolytic
C1207	VCKYTV1CF105Z	J	AB	1 μF,16V	CA162	VCEAZA1HW106M	J	AB	10 μF,50V,Electrolytic
C1208,1209	VCCCCY1HH120J	J	AA	12 pF (CH),50V	CA163	VCEAZA1CW227M	J	AC	220 μF,16V,Electrolytic
C1210	VCCCCY1HH220J	J	AA	22 pF (CH),50V					

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CA164,165	RC-EZD107AF1A	J	AB	100 μF,10V,Electrolytic
CA177~180	VCKYCY1EB103K	J	AA	0.01 μF,25V
CA181	VCCCCY1HH101J	J	AA	100 pF (CH),50V
CA182	VCKYCY1EF104Z	J	AA	0.1 μF,25V
CA184	RC-EZD476AF1A	J	AC	47 μF,10V,Electrolytic
CA185	VCKYCY1HB102K	J	AA	0.001 μF,50V
CA186	RC-EZD476AF1A	J	AC	47 μF,10V,Electrolytic
CA187~193	VCKYCY1HB102K	J	AA	0.001 μF,50V
CA194	RC-EZD476AF1C	J	AC	47 μF,16V,Electrolytic
CA196,197	RC-EZD476AF1E	J	AC	47 μF,25V,Electrolytic
CA198	VCKYCY1EF104Z	J	AA	0.1 μF,25V
CA211	VCKYCY1EF104Z	J	AA	0.1 μF,25V
CA212	RC-EZD107AF1C	J	AC	100 μF,16V,Electrolytic
CA213	RC-EZD107AF1E	J	AD	100 μF,25V,Electrolytic
CA214	VCKYCY1HB102K	J	AA	0.001 μF,50V
CA215~222	VCCCCY1HH560J	J	AA	56 pF (CH),50V
CA223,224	VCFYHA1HA224J	J	AC	0.22 μF,50V,Thin Film
CD01~03	VCEAZA1HW105M	J	AB	1 μF,50V,Electrolytic
CD04	VCTYBT1EF223Z	J	AA	0.022 μF,25V
CD05	VCEAZA1CW476M	J	AB	47 μF,16V,Electrolytic
CD06	VCTYMN1EF223Z	J	AA	0.022 μF,25V
CD07	VCEAEA1HW105M	J	AB	1 μF,50V,Electrolytic
CD10	VCTYBT1EF223Z	J	AA	0.022 μF,25V
CD11	VCEAEA1CW106M	J	AB	10 μF,16V,Electrolytic
CD12~14	VCCSMN1HL470J	J	AA	47 pF,50V
CD16,17	VCKYMN1HB101K	J	AA	100 pF,50V
CD18	VCCSMN1HL470J	J	AA	47 pF,50V
CD19	VCTYMN1EF223Z	J	AA	0.022 μF,25V
CD20	VCEAZA1CW106M	J	AC	10 μF,16V,Electrolytic
CD21,22	VCCCMN1HH150J	J	AA	15 pF (CH),50V
CD23	VCCCMN1HH180J	J	AA	18 pF (CH),50V
CD29	VCTYBT1EF223Z	J	AA	0.022 μF,25V
CD30	VCEAEA1CW106M	J	AB	10 μF,16V,Electrolytic
CD31	VCKYBT1HB101K	J	AA	100 pF,50V
CD32~35	VCKYMN1HB101K	J	AA	100 pF,50V
CD36,37	VCTYMN1EF103Z	J	AB	0.01 μF,25V
CD38~40	VCTYMN1EF223Z	J	AA	0.022 μF,25V
CD45	VCKYMN1HB151K	J	AA	150 pF,50V
CD46	VCTYMN1EF223Z	J	AA	0.022 μF,25V
CD47	VCTYMN1CY103M	J	AA	0.01 μF,16V
CD48	VCEAEA1HW475M	J	AB	4.7 μF,50V,Electrolytic
CD49	VCFYHA1HA104J	J	AB	0.1 μF,50V,Thin Film
CD50	VCEAZA1AW477M	J	AC	470 μF,10V,Electrolytic
CD51	VCEAEA1CW226M	J	AB	22 μF,16V,Electrolytic
CD52	VCTYMN1EF223Z	J	AA	0.022 μF,25V
CD53	VCEAEA1CW106M	J	AB	10 μF,16V,Electrolytic
CD54	VCKYBT1HB331K	J	AA	330 pF,50V
CD55	VCKYBT1HB102K	J	AA	0.001 μF,50V
CD56	VCKYMN1HB102K	J	AA	0.001 μF,50V
CP01,02	VCEAEA1HW225M	J	AB	2.2 μF,50V,Electrolytic
CP03,04	VCCCCY1HH220J	J	AA	22 pF (CH),50V
CP05,06	VCCCCY1HH101J	J	AA	100 pF (CH),50V
CP07,08	VCEAEA1HW105M	J	AB	1 μF,50V,Electrolytic
CP09,10	VCEAEA1HW225M	J	AB	2.2 μF,50V,Electrolytic
CP13,14	VCEAZA1EW476M	J	AB	47 μF,25V,Electrolytic
CP23,24	VCEAZA1CW226M	J	AC	22 μF,16V,Electrolytic
CP33,34	VCEAZA1CW107M	J	AC	100 μF,16V,Electrolytic
CS01,02	VQCYKA1HM823K	J	AC	0.082 μF,50V,Mylar
CS03,04	VCKYCY1HB472K	J	AA	0.0047 μF,50V
CS05,06	VCKYCY1HB332K	J	AA	0.0033 μF,50V
CS08,09	VCEAEA1HW224M	J	AB	0.22 μF,50V,Electrolytic
CS10,11	VCEAZA1EW476M	J	AB	47 μF,25V,Electrolytic
CU01,02	VCEAEA1HW225M	J	AB	2.2 μF,50V,Electrolytic
CU05~08	VCEAEA1HW225M	J	AB	2.2 μF,50V,Electrolytic
CU09,10	VCEAEA1HW105M	J	AB	1 μF,50V,Electrolytic
CU11,12	VCEAEA1HW225M	J	AB	2.2 μF,50V,Electrolytic
CU13,14	VCKYCY1HB102K	J	AA	0.001 μF,50V
CU15,16	VCEAEA1HW224M	J	AB	0.22 μF,50V,Electrolytic
CU17,18	VCEAEA1HW334M	J	AB	0.33 μF,50V,Electrolytic
CU19,20	VCCCCY1HH470J	J	AA	47 pF (CH),50V
CU21,22	VCKYCY1HB471K	J	AA	470 pF,50V
CU30	RC-EZ0048AWZZ	J	AC	22 μF,16V,Electrolytic
CU31	VCKYCY1EF223Z	J	AB	0.022 μF,25V
CU32	VCEAZA1CW107M	J	AC	100 μF,16V,Electrolytic
CU33	RC-EZ0004AWZZ	J	AD	100 μF,10V,Electrolytic
CU34~36	VCCCCY1HH101J	J	AA	100 pF (CH),50V
CU41	VCKYCY1HB222K	J	AA	0.0022 μF,50V
CU42	VCKYCY1HB222K	J	AA	0.0022 μF,50V
CU43	VCKYBT1HB102K	J	AA	0.001 μF,50V
CU45	RC-EZ0004AWZZ	J	AD	100 μF,10V,Electrolytic
CU46	VCTYBT1CX332M	J	AA	0.0033 μF,16V
CU47	VCKYBT1HB102K	J	AA	0.001 μF,50V

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CU48	VCKYCY1HB102K	J	AA	0.001 μF,50V
CU49	VCKYCY1HB471K	J	AA	470 pF,50V
CU50	VCKYCY1HB102K	J	AA	0.001 μF,50V
CV66,67	VCEAEA1HW105M	J	AB	1 μF,50V,Electrolytic
CV72,73	VCEAZA1EW476M	J	AB	47 μF,25V,Electrolytic
CV74	VCEAZA1CW106M	J	AC	10 μF,16V,Electrolytic
CV75,76	VCFYHA1HA104J	J	AB	0.1 μF,50V,Thin Film
CV77	VCTYMN1CY103M	J	AA	0.01 μF,16V
CV78	VCTYMN1EF223Z	J	AA	0.022 μF,25V
CV79	VCEAZA1EW476M	J	AB	47 μF,25V,Electrolytic
CV80	VCTYMN1CX222K	J	AA	0.0022 μF,16V
CV81	VCTYBT1EF223Z	J	AA	0.022 μF,25V
CV82	VCEAZA1EW476M	J	AB	47 μF,25V,Electrolytic
CV83	VCEAZA1CW226M	J	AC	22 μF,16V,Electrolytic
CV88	VCTYMN1EF223Z	J	AA	0.022 μF,25V
CV89	VCEAZA1EW476M	J	AB	47 μF,25V,Electrolytic
CV90	VCTYBT1CX222M	J	AA	0.0022 μF,16V
CV92	VCKYBT1HB331J	J	AA	330 pF,50V
CV93	VCTYMN1EF223Z	J	AA	0.022 μF,25V
CV94	VCEAZA1EW476M	J	AB	47 μF,25V,Electrolytic
CV95,96	VCTYMN1CX222K	J	AA	0.0022 μF,16V
CV97~99	VQCYKA1HM102J	J	AB	0.001 μF,50V,Mylar
R1707	VCCCCY1HH331J	J	AA	330 pF (CH),50V
R1710	VCCCCY1HH331J	J	AA	330 pF (CH),50V

RESISTORS

	VRD-MN2BD000C	J	AA	0 ohm,Jumper,ø1.4×3.5mm,Ivory
	VRS-CY1JB000J	J	AA	0 ohm,Jumper,0.8×1.55mm,Green
	VRS-TV2AB000J	J	AA	0 ohm,Jumper,1.25×2mm,Green
R1	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R2,3	VRS-CY1JB823J	J	AA	82 kohms,1/16W
R4	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R5,6	VRS-CY1JB823J	J	AA	82 kohms,1/16W
R8	VRD-ST2EE100J	J	AA	10 ohm,1/4W
R9,10	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R11	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R12	VRS-CY1JB821J	J	AA	820 ohms,1/16W
R13	VRD-ST2CD333J	J	AA	33 kohms,1/6W
R14	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R16	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R17	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R18	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R19	VRS-CY1JB683J	J	AA	68 kohms,1/16W
R20	VRS-CY1JB682J	J	AA	6.8 kohms,1/16W
R23	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R24	VRS-CY1JB562J	J	AA	5.6 kohms,1/16W
R25	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R26	VRS-CY1JB154J	J	AA	150 kohms,1/16W
R27	VRS-CY1JB153J	J	AA	15 kohms,1/16W
R28	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R31	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R38	VRS-CY1JB105J	J	AA	1 Mohm,1/16W
R42	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R44	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R45~50	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R52	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R53	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R54~57	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R58	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R60	VRS-CY1JB122J	J	AA	1.2 kohms,1/16W
R61	VRD-ST2EE470J	J	AA	47 ohms,1/4W
R62	VRS-CY1JB220J	J	AA	22 ohms,1/16W
R63	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R64	VRS-CY1JB333J	J	AA	33 kohms,1/16W
R65	VRS-CY1JB392J	J	AA	3.9 kohms,1/16W
R66	VRS-CY1JB123J	J	AA	12 kohms,1/16W
R67,68	VRS-CY1JB392J	J	AA	3.9 kohms,1/16W
R69~72	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R74	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R101	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R102	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R103	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R104	VRS-CY1JB123J	J	AA	12 kohms,1/16W
R105	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R106	VRS-CY1JB562J	J	AA	5.6 kohms,1/16W
R107	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R108	VRD-ST2CD221J	J	AA	220 ohms,1/6W
R109	VRD-ST2CD1R0J	J	AA	1 ohm,1/6W
R110,111	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R301	VRS-CY1JB151J	J	AA	150 ohms,1/16W

SD-CX1W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R323	VRS-CY1JB683J	J	AA	68 kohms, 1/16W
R336	VRS-CY1JB103J	J	AA	10 kohm, 1/16W
R345	VRS-CY1JB472J	J	AA	4.7 kohms, 1/16W
R350	VRS-CY1JB272J	J	AA	2.7 kohms, 1/16W
R351	VRS-CY1JB562J	J	AA	5.6 kohms, 1/16W
R352	VRD-ST2CD102J	J	AA	1 kohm, 1/6W
R353	VRS-CY1JB271J	J	AA	270 ohms, 1/16W
R354	VRS-CY1JB392J	J	AA	3.9 kohms, 1/16W
R355	VRS-CY1JB332J	J	AA	3.3 kohms, 1/16W
R356	VRS-CY1JB102J	J	AA	1 kohm, 1/16W
R357	VRS-CY1JB474J	J	AA	470 kohms, 1/16W
R358	VRS-CY1JB822J	J	AA	8.2 kohms, 1/16W
R359	VRS-CY1JB182J	J	AA	1.8 kohms, 1/16W
R360	VRS-CY1JB472J	J	AA	4.7 kohms, 1/16W
R361,362	VRS-CY1JB681J	J	AA	680 ohms, 1/16W
R363,364	VRS-CY1JB472J	J	AA	4.7 kohms, 1/16W
R369	VRD-ST2CD751J	J	AA	750 ohms, 1/6W
R370	VRS-CY1JB102J	J	AA	1 kohm, 1/16W
R371	VRS-CY1JB472J	J	AA	4.7 kohms, 1/16W
R372~374	VRS-CY1JB102J	J	AA	1 kohm, 1/16W
R376	VRS-CY1JB102J	J	AA	1 kohm, 1/16W
R377	VRD-ST2CD473J	J	AA	47 kohms, 1/6W
R378	VRS-CY1JB823J	J	AA	82 kohms, 1/16W
R379	VRS-CY1JB222J	J	AA	2.2 kohms, 1/16W
R380	VRS-CY1JB152J	J	AA	1.5 kohms, 1/16W
R381	VRS-CY1JB103J	J	AA	10 kohm, 1/16W
R382	VRD-ST2EE151J	J	AA	150 ohms, 1/4W
R383~385	VRS-CY1JB562J	J	AA	5.6 kohms, 1/16W
R386	VRS-CY1JB102J	J	AA	1 kohm, 1/16W
R389	VRS-CY1JB392J	J	AA	3.9 kohms, 1/16W
R391,392	VRD-ST2EE391J	J	AA	390 ohms, 1/4W
R393	VRS-CY1JB102J	J	AA	1 kohm, 1/16W
R395	VRS-CY1JB473J	J	AA	47 kohms, 1/16W
R399	VRS-CY1JB103J	J	AA	10 kohm, 1/16W
R601	VRD-ST2CD333J	J	AA	33 kohms, 1/6W
R800	VRD-MN2BD222J	J	AA	2.2 kohms, 1/8W
R801	VRD-MN2BD101J	J	AA	100 ohm, 1/8W
R802	VRD-MN2BD123J	J	AA	12 kohms, 1/8W
R803,804	VRD-RT2HD221J	J	AA	220 ohms, 1/2W
R805	VRD-RT2HD101J	J	AA	100 ohm, 1/2W
R806	VRD-RT2HD221J	J	AA	220 ohms, 1/2W
R807	VRD-MN2BD102J	J	AA	1 kohm, 1/8W
R808	VRD-ST2CD102J	J	AA	1 kohm, 1/6W
R809,810	VRD-ST2EE331J	J	AA	330 ohms, 1/4W
R811	VRD-MN2BD104J	J	AA	100 kohm, 1/8W
R812	VRD-ST2CD102J	J	AA	1 kohm, 1/6W
R813,814	VRD-ST2EE331J	J	AA	330 ohms, 1/4W
R815	VRD-MN2BD104J	J	AA	100 kohm, 1/8W
R816	VRD-ST2EE102J	J	AA	1 kohm, 1/4W
R817	VRD-MN2BD151J	J	AA	150 ohms, 1/8W
R818	VRD-ST2CD473J	J	AA	47 kohms, 1/6W
R819	VRD-MN2BD393J	J	AA	39 kohms, 1/8W
R820	VRD-MN2BD474J	J	AA	470 kohms, 1/8W
R821	VRD-ST2CD102J	J	AA	1 kohm, 1/6W
R822	VRD-ST2EE151J	J	AA	150 ohms, 1/4W
R823	VRD-MN2BD104J	J	AA	100 kohm, 1/8W
R824	VRD-ST2CD472J	J	AA	4.7 kohms, 1/6W
R825,826	VRD-ST2EE331J	J	AA	330 ohms, 1/4W
R827	VRD-ST2CD102J	J	AA	1 kohm, 1/6W
R901	VRD-ST2CD472J	J	AA	4.7 kohms, 1/6W
R902	VRD-ST2CD473J	J	AA	47 kohms, 1/6W
R903,904	VRD-ST2CD102J	J	AA	1 kohm, 1/6W
R905	VRD-RT2HD272J	J	AA	2.7 kohms, 1/2W
R1100	VRS-TQ2BB270J	J	AA	27 ohms, 1/8W
R1101	VRS-CY1JB1R0J	J	AA	1 ohm, 1/16W
R1102	VRS-CY1JB103J	J	AA	10 kohm, 1/16W
R1105	VRS-CY1JB122J	J	AA	1.2 kohms, 1/16W
R1110	VRS-CY1JB684F	J	AA	680 kohms, 1/16W
R1111,1112	VRS-CY1JB104F	J	AA	100 kohm, 1/16W
R1113	VRS-CY1JB684F	J	AA	680 kohms, 1/16W
R1114	VRS-CY1JB123J	J	AA	12 kohms, 1/16W
R1115	VRS-CY1JB334F	J	AA	330 kohms, 1/16W
R1116,1117	VRS-CY1JB473F	J	AA	47 kohms, 1/16W
R1118	VRS-CY1JB334F	J	AA	330 kohms, 1/16W
R1119	VRS-CY1JB224J	J	AA	220 kohms, 1/16W
R1120	VRS-CY1JB564J	J	AA	560 kohms, 1/16W
R1121	VRS-CY1JB104J	J	AA	100 kohm, 1/16W
R1122,1123	VRS-CY1JB123J	J	AA	12 kohms, 1/16W
R1124,1125	VRS-CY1JB222J	J	AA	2.2 kohms, 1/16W
R1201	VRS-CY1JB563F	J	AA	56 kohms, 1/16W
R1203	VRS-CY1JB104F	J	AA	100 kohm, 1/16W
R1205	VRS-CY1JB683J	J	AA	68 kohms, 1/16W

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R1207	VRS-CY1JB393J	J	AA	39 kohms, 1/16W
R1208	VRS-CY1JB221J	J	AA	220 ohms, 1/16W
R1209	VRS-CY1JB101J	J	AA	100 ohm, 1/16W
R1210,1211	VRS-CY1JB221J	J	AA	220 ohms, 1/16W
R1212	VRS-CY1JB470J	J	AA	47 ohms, 1/16W
R1214	VRS-CY1JB103J	J	AA	10 kohm, 1/16W
R1215	VRS-CY1JB105J	J	AA	1 Mohm, 1/16W
R1217	VRS-CY1JB151J	J	AA	150 ohms, 1/16W
R1221,1222	VRS-CY1JB473J	J	AA	47 kohms, 1/16W
R1230,1231	VRS-CY1JB103F	J	AA	10 kohm, 1/16W
R1232	VRS-CY1JB123J	J	AA	12 kohms, 1/16W
R1261~1266	VRS-CY1JB273J	J	AA	27 kohms, 1/16W
R1300	VRS-TV2AB6R8J	J	AA	6.8 ohms, 1/10W
R1301	VRS-CY1JB100J	J	AA	10 ohm, 1/16W
R1304	VRS-TV2AB151J	J	AA	150 ohms, 1/10W
R1401	VRS-CY1JB272J	J	AA	2.7 kohms, 1/16W
R1403	VRS-CY1JB471J	J	AA	470 ohms, 1/16W
R1405	VRS-CY1JB104J	J	AA	100 kohm, 1/16W
R1406	VRS-CY1JB103J	J	AA	10 kohm, 1/16W
R1407,1408	VRS-CY1JB332J	J	AA	3.3 kohms, 1/16W
R1414	VRS-CY1JB224J	J	AA	220 kohms, 1/16W
R1415	VRS-CY1JB102J	J	AA	1 kohm, 1/16W
R1417,1418	VRS-CY1JB102J	J	AA	1 kohm, 1/16W
R1420	VRS-CY1JB102J	J	AA	1 kohm, 1/16W
R1424	VRS-CY1JB473J	J	AA	47 kohms, 1/16W
R1430	VRS-CY1JB103J	J	AA	10 kohm, 1/16W
R1435	VRS-CY1JB103J	J	AA	10 kohm, 1/16W
R1440	VRS-CY1JB101J	J	AA	100 ohm, 1/16W
R1441	VRS-CY1JB473J	J	AA	47 kohms, 1/16W
R1443	VRS-CY1JB102J	J	AA	1 kohm, 1/16W
R1444	VRS-CY1JB103J	J	AA	10 kohm, 1/16W
R1460	VRS-CY1JB103J	J	AA	10 kohm, 1/16W
R1463	VRS-CY1JB103J	J	AA	10 kohm, 1/16W
R1510	VRS-CY1JB102J	J	AA	1 kohm, 1/16W
R1511	VRS-CY1JB562J	J	AA	5.6 kohms, 1/16W
R1512	VRS-TV2AB470J	J	AA	47 ohms, 1/10W
R1513	VRS-CY1JB562J	J	AA	5.6 kohms, 1/16W
R1515,1516	VRS-CY1JB182J	J	AA	1.8 kohms, 1/16W
R1517,1518	VRS-CY1JB470J	J	AA	47 ohms, 1/16W
R1520	VRS-CY1JB473J	J	AA	47 kohms, 1/16W
R1521	VRS-CY1JB121J	J	AA	120 ohms, 1/16W
R1523	VRS-CY1JB473J	J	AA	47 kohms, 1/16W
R1526	VRS-CY1JB682J	J	AA	6.8 kohms, 1/16W
R1527	VRS-CY1JB473J	J	AA	47 kohms, 1/16W
R1529	VRS-CY1JB221J	J	AA	220 ohms, 1/16W
R1532	VRS-CY1JB273J	J	AA	27 kohms, 1/16W
R1533~1536	VRS-CY1JB102J	J	AA	1 kohm, 1/16W
R1537,1538	VRS-CY1JB221J	J	AA	220 ohms, 1/16W
R1539	VRS-CY1JB121J	J	AA	120 ohms, 1/16W
R1561	VRS-CY1JB473J	J	AA	47 kohms, 1/16W
R1601	VRS-CY1JB123F	J	AA	12 kohms, 1/16W
R1605	VRS-CY1JB123F	J	AA	12 kohms, 1/16W
R1612	VRS-CY1JB563J	J	AA	56 kohms, 1/16W
R1614	VRS-CY1JB333J	J	AA	33 kohms, 1/16W
R1616	VRS-CY1JB123J	J	AA	12 kohms, 1/16W
R1618	VRS-CY1JB223J	J	AA	22 kohms, 1/16W
R1621	VRS-CY1JB682J	J	AA	6.8 kohms, 1/16W
R1622,1623	VRS-CY1JB223J	J	AA	22 kohms, 1/16W
R1624	VRS-CY1JB682J	J	AA	6.8 kohms, 1/16W
R1701	VRS-CY1JB154J	J	AA	150 kohms, 1/16W
R1702	VRS-CY1JB124J	J	AA	120 kohms, 1/16W
R1703	VRS-CY1JB102F	J	AA	1 kohm, 1/16W
R1704	VRS-CY1JB332F	J	AA	3.3 kohms, 1/16W
R1705	VRS-CY1JB821J	J	AA	820 ohms, 1/16W
R1708	VRS-CY1JB102J	J	AA	1 kohm, 1/16W
R1711	VRS-TV2AB120J	J	AA	12 ohms, 1/10W
R1712	VRS-CY1JB273J	J	AA	27 kohms, 1/16W
R1714	VRS-TV2AB120J	J	AA	12 ohms, 1/10W
R1716	VRS-CY1JB104J	J	AA	100 kohm, 1/16W
R1801	VRS-CY1JB271J	J	AA	270 ohms, 1/16W
R1802	VRS-CY1JB563J	J	AA	56 kohms, 1/16W
R1803	VRS-CY1JB333J	J	AA	33 kohms, 1/16W
R1804	VRS-CY1JB391J	J	AA	390 ohms, 1/16W
R1805	VRS-CY1JB271J	J	AA	270 ohms, 1/16W
R1806	VRS-TQ2BB1R0J	J	AA	1 ohm, 1/8W
R1807	VRS-CY1JB273J	J	AA	27 kohms, 1/16W
R1808	VRS-CY1JB182J	J	AA	1.8 kohms, 1/16W
R1809	VRS-TQ2BB1R0J	J	AA	1 ohm, 1/8W
R1811	VRS-TQ2BB1R0J	J	AA	1 ohm, 1/8W
R1930	VRS-TV2AB391J	J	AA	390 ohms, 1/10W
R1931	VRS-TV2AB561J	J	AA	560 ohms, 1/10W
R1932	VRS-TV2AB121J	J	AA	120 ohms, 1/10W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION	NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R1933	VRS-TV2AB271J	J	AA	270 ohms,1/10W	RD95	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RA100,101	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W	RD96	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W
RA102,103	VRS-CY1JB203J	J	AA	20 kohms,1/16W	RD97	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
RA104,105	VRS-CY1JB753D	J	AA	75 kohms,1/16W	RD98	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W
RA108,109	VRS-CY1JB753D	J	AA	75 kohms,1/16W	RD99	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
RA112~115	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W	RE01	VRD-ST2CD392J	J	AA	3.9 kohms,1/6W
RA116	VRS-CY1JB103J	J	AA	10 kohm,1/16W	RE02~17	VRD-MN2BD473J	J	AA	47 kohms,1/8W
RA117~120	VRS-CY1JB224J	J	AA	220 kohms,1/16W	RE18	VRD-MN2BD271J	J	AA	270 ohms,1/8W
RA125,126	VRS-CY1JB222D	J	AA	2.2 kohms,1/16W	RE19,20	VRD-MN2BD181J	J	AA	180 ohms,1/8W
RA127~130	VRS-CY1JB561D	J	AB	560 ohms,1/16W	RE28,29	VRD-MN2BD681J	J	AA	680 ohms,1/8W
RA131,132	VRS-CY1JB222D	J	AA	2.2 kohms,1/16W	RE30,31	VRD-MN2BD331J	J	AA	330 ohms,1/8W
RA153	VRS-CY1JB102J	J	AA	1 kohm,1/16W	RE32	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RA154	VRS-CY1JB152J	J	AA	1.5 kohms,1/16W	RE35	VRD-MN2BD681J	J	AA	680 ohms,1/8W
RA165~172	VRS-CY1JB101J	J	AA	100 ohm,1/16W	RE36,37	VRD-MN2BD151J	J	AA	150 ohms,1/8W
RA173,174	VRS-CY1JB822J	J	AA	8.2 kohms,1/16W	RE38	VRD-MN2BD224J	J	AA	220 kohms,1/8W
RA175,176	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W	RE39	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RA177,178	VRS-CY1JB221J	J	AA	220 ohms,1/16W	RE40	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
RA179,180	VRS-CY1JB331J	J	AA	330 ohms,1/16W	RE41	VRD-ST2CD473J	J	AA	47 kohms,1/6W
RA181~184	VRS-CY1JB124D	J	AA	120 kohms,1/16W	RE42,43	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
RA202	VRS-CY1JB102J	J	AA	1 kohm,1/16W	RE44	VRD-ST2CD473J	J	AA	47 kohms,1/6W
RA280,281	VRS-CY1JB821D	J	AA	820 ohms,1/16W	RE45	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RA282~285	VRS-CY1JB121D	J	AB	120 ohms,1/16W	RE46	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
RA286,287	VRS-CY1JB821D	J	AA	820 ohms,1/16W	RE47	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
RA301~304	VRS-CY1JB100J	J	AA	10 ohm,1/16W	RE48	VRD-MN2BD223J	J	AA	22 kohms,1/8W
RA305~308	VRS-TV2AB100J	J	AA	10 ohm,1/10W	RE50	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RA311~314	VRS-TV2AB100J	J	AA	10 ohm,1/10W	RE51	VRD-ST2CD223J	J	AA	22 kohms,1/6W
RA315~318	VRS-CY1JB100J	J	AA	10 ohm,1/16W	RP01,02	VRS-CY1JB223J	J	AA	22 kohms,1/16W
RA321~324	VRS-CY1JB100J	J	AA	10 ohm,1/16W	RP03,04	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
RA325~328	VRS-TV2AB100J	J	AA	10 ohm,1/10W	RP05,06	VRS-CY1JB104J	J	AA	100 kohm,1/16W
RA331~334	VRS-TV2AB100J	J	AA	10 ohm,1/10W	RP07,08	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
RA335~338	VRS-CY1JB100J	J	AA	10 ohm,1/16W	RP11,12	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RA339	VRS-CY1JB473J	J	AA	47 kohms,1/16W	RP13,14	VRS-CY1JB682J	J	AA	6.8 kohms,1/16W
RA340,341	VRS-VV3LA470J	J	AC	47 ohms,1W	RP15,16	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
RA342	VRS-CY1JB103J	J	AA	10 kohm,1/16W	RP17,18	VRS-CY1JB562J	J	AA	5.6 kohms,1/16W
RD02,03	VRD-MN2BD102J	J	AA	1 kohm,1/8W	RP19,20	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
RD04,05	VRD-ST2CD102J	J	AA	1 kohm,1/6W	RP23	VRS-CY1JB103J	J	AA	10 kohm,1/16W
RD06	VRD-MN2BD102J	J	AA	1 kohm,1/8W	RP24	VRS-CY1JB104J	J	AA	100 kohm,1/16W
RD07~11	VRD-ST2CD102J	J	AA	1 kohm,1/6W	RP25~28	VRD-ST2EE470J	J	AA	47 ohms,1/4W
RD12~14	VRD-ST2CD103J	J	AA	10 kohm,1/6W	RP31	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
RD15,16	VRD-ST2CD102J	J	AA	1 kohm,1/6W	RS01	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RD17	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W	RS02	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RD18,19	VRD-ST2CD102J	J	AA	1 kohm,1/6W	RS03,04	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
RD20,21	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W	RS05,06	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RD22	VRD-ST2CD102J	J	AA	1 kohm,1/6W	RS07~09	VRS-CY1JB104J	J	AA	100 kohm,1/16W
RD23	VRD-MN2BD102J	J	AA	1 kohm,1/8W	RS10	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RD24~28	VRD-ST2CD102J	J	AA	1 kohm,1/6W	RS11,12	VRS-CY1JB821J	J	AA	820 ohms,1/16W
RD29	VRD-ST2CD103J	J	AA	10 kohm,1/6W	RS13,14	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
RD31~37	VRD-ST2CD102J	J	AA	1 kohm,1/6W	RS17	VRS-CY1JB104J	J	AA	100 kohm,1/16W
RD39	VRD-MN2BD821J	J	AA	820 ohms,1/8W	RS18,19	VRD-ST2EE221J	J	AA	220 ohms,1/4W
RD41,42	VRD-ST2CD102J	J	AA	1 kohm,1/6W	RS23,24	VRS-CY1JB104J	J	AA	100 kohm,1/16W
RD43,44	VRD-MN2BD102J	J	AA	1 kohm,1/8W	RS25,26	VRS-CY1JB103J	J	AA	10 kohm,1/16W
RD45,46	VRD-ST2CD102J	J	AA	1 kohm,1/6W	RU01,02	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RD47	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W	RU05~08	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RD49	VRD-MN2BD561J	J	AA	560 ohms,1/8W	RU09,10	VRS-CY1JB272J	J	AA	2.7 kohms,1/16W
RD50	VRD-ST2CD224J	J	AA	220 kohms,1/6W	RU11,12	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RD51	VRD-MN2BD103J	J	AA	10 kohm,1/8W	RU17,18	VRS-CY1JB273J	J	AA	27 kohms,1/16W
RD52,53	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W	RU19,20	VRS-CY1JB153J	J	AA	15 kohms,1/16W
RD56	VRD-MN2BD180J	J	AA	18 ohms,1/8W	RU21,22	VRS-CY1JB471J	J	AA	470 ohms,1/16W
RD57	VRD-ST2CD220J	J	AA	22 ohms,1/6W	RU23,24	VRD-ST2CD102J	J	AA	1 kohm,1/6W
RD60	VRD-MN2BD103J	J	AA	10 kohm,1/8W	RU30~32	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RD61	VRD-ST2CD683J	J	AA	68 kohms,1/6W	RU33,34	VRD-RT2HD221J	J	AA	220 ohms,1/2W
RD62,63	VRD-ST2CD103J	J	AA	10 kohm,1/6W	RU39,40	VRS-CY1JB470J	J	AA	47 ohms,1/16W
RD64	VRD-MN2BD103J	J	AA	10 kohm,1/8W	RU60	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RD66,67	VRD-MN2BD103J	J	AA	10 kohm,1/8W	RU61	VRS-CY1JB183J	J	AA	18 kohms,1/16W
RD69	VRD-MN2BD102J	J	AA	1 kohm,1/8W	RU70	VRS-CY1JB101J	J	AA	100 ohm,1/16W
RD74,75	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W	RV44	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RD76	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W	RV45	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
RD77	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W	RV48	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RD78	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W	RV49	VRD-MN2BD221J	J	AA	220 ohms,1/8W
RD79	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W	RV50	VRD-ST2EE102J	J	AA	1 kohm,1/4W
RD81	VRD-MN2BD822J	J	AA	8.2 kohms,1/8W	RV51	VRD-MN2BD104J	J	AA	100 kohm,1/8W
RD82	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W	RV53	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
RD83	VRD-ST2CD102J	J	AA	1 kohm,1/6W	RV54	VRD-MN2BD124J	J	AA	120 kohms,1/8W
RD85	VRD-ST2CD102J	J	AA	1 kohm,1/6W	RV55	VRD-MN2BD104J	J	AA	100 kohm,1/8W
RD86	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W	RV56	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RD87	VRD-ST2CD562J	J	AA	5.6 kohms,1/6W	RV57	VRD-MN2BD104J	J	AA	100 kohm,1/8W
RD88	VRD-ST2CD103J	J	AA	10 kohm,1/6W	RV58	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
RD90	VRD-MN2BD102J	J	AA	1 kohm,1/8W	RV59,60	VRD-MN2BD223J	J	AA	22 kohms,1/8W
RD91	VRD-ST2CD122J	J	AA	1.2 kohms,1/6W	RV61~64	VRD-ST2CD153J	J	AA	15 kohms,1/6W
RD92	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W	RV65,66	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
RD93	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W	RV67	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RD94	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W	RV68	VRD-MN2BD104J	J	AA	100 kohm,1/8W

SD-CX1W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
RV69	VRD-ST2EE221J	J	AA	220 ohms,1/4W
RV70	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
RV71	VRD-MN2BD391J	J	AA	390 ohms,1/8W
RV72	VRD-MN2BD103J	J	AA	10 kohm,1/8W
RV73	VRN-RT2CC184F	J	AA	180 kohms,1/6W,Metal Film
RV74,75	VRD-ST2EE221J	J	AA	220 ohms,1/4W
RV76	VRN-RT2CC184F	J	AA	180 kohms,1/6W,Metal Film
RV78,79	VRN-RT2CC103F	J	AA	10 kohms,1/6W,Metal Film
RV80,81	VRN-RT2CC562F	J	AA	5.6 kohms,1/6W,Metal Film
RV82,83	VRN-RT2CC153F	J	AA	15 kohms,1/6W,Metal Film
RV84,85	VRS-VV3AAR20J	J	AB	0.2 ohms,1W
RV86	VRD-ST2CD103J	J	AA	10 kohm,1/6W
RV87	VRD-ST2CD104J	J	AA	100 kohm,1/6W
RV88,89	VRN-RT2CC184F	J	AA	180 kohms,1/6W,Metal Film
RV90,91	VRN-RT2CC103F	J	AA	10 kohms,1/6W,Metal Film
RV92,93	VRN-RT2CC562F	J	AA	5.6 kohms,1/6W,Metal Film
RV94,95	VRN-RT2CC153F	J	AA	15 kohms,1/6W,Metal Film
RV96,97	VRS-VV3AAR20J	J	AB	0.2 ohms,1W
RV98	VRD-ST2EE221J	J	AA	220 ohms,1/4W

OTHER CIRCUITRY PARTS

BI02	QCNWN1775AWZZ	J	AC	Flat Wire,4Pin
BI1/CNS1	QCNWN1756AWZZ	J	AG	Connector Ass'y,7/7Pin
BI2/CNS2	QCNWN1757AWZZ	J	AH	Connector Ass'y,8/8Pin
BI3/CNS3	QCNWN1758AWZZ	J	AF	Connector Ass'y,6/6Pin
BI5/CNS5	QCNWN1760AWZZ	J	AE	Connector Ass'y,3/3Pin
BI102/CNS102	QCNWN1911AWZZ	J	AE	Connector Ass'y,2/2Pin
BI302/CNS302	QCNWN1772AWZZ	J	AG	Connector Ass'y,10/10Pin
BI303	QCNWN1897AWZZ	J	AD	Connector Ass'y,2/2Pin
BI800/CNS800	QCNWN1765AWZZ	J	AG	Connector Ass'y,7/7Pin
BI900/CNS900	QCNWN1762AWZZ	J	AE	Connector Ass'y,4/4Pin
△ BI901/CNS901	QCNWN1942AWZZ	J		Connector Ass'y,5/5Pin
BIA106/CNSA106	QCNWN1788AWZZ	J	AF	Connector Ass'y,3/3Pin
BIA110/CNSA110	QCNWN1789AWZZ	J	AF	Connector Ass'y,4/4Pin
BIA111/CNSA111	QCNWN1790AWZZ	J	AE	Connector Ass'y,3/3Pin
BIA112/CNSA112	QCNWN1791AWZZ	J	AF	Connector Ass'y,5/5Pin
BID02	QCNWN1774AWZZ	J	AC	Flat Wire,3Pin
BID03	QCNWN1773AWZZ	J	AE	Flat Wire,6Pin
BID04/CNSD04	QCNWN1766AWZZ	J	AF	Connector Ass'y,4/4Pin
BIU01/CNSU01	QCNWN1761AWZZ	J	AE	Connector Ass'y,2/2Pin
CN902	92LCONE7P5268	J	AE	Plug,7Pin
CN1101	QCNCWYK28AFZZ	J	AH	Socket,28Pin
CN1300	QCNCM970BAFZZ	J	AD	Plug,2Pin
CN1401	QCNCWXC05AFZZ	J	AC	Socket,5Pin
CN1402	QCNCWXC06AFZZ	J	AD	Socket,6Pin
CN1501	QCNCWYR28AWZZ	J	AF	Socket,28Pin
CN1502	QCNCM970DAFZZ	J	AE	Socket,4Pin
CN1931	QCNCWXC05AFZZ	J	AC	Socket,5Pin
CN1932	QCNCWXC06AFZZ	J	AD	Socket,6Pin
CNP3	92LCONE6P53254	J	AC	Plug,6Pin
CNP5	92LCONE3P53253	J	AB	Plug,3Pin
CNP6	QCNCM704BAFZZ	J	AA	Plug,2Pin
CNP7	92LCONE2P53253	J	AB	Plug,2Pin
CNP8	QCNCM705DAFZZ	J	AB	Plug,4Pin
CNP102	QCNCM705BAFZZ	J	AA	Plug,2Pin
CNP601	QCNCWZP22AWZZ	J	AD	Socket,22Pin
CNP602	QCNCWZP16AWZZ	J	AD	Socket,16Pin
CNP603	QCNCWZP30AWZZ	J	AE	Socket,30Pin
CNP801	92LCONE-3P5267	J	AB	Plug,3Pin
CNP802	92LCONE5P53253	J	AB	Plug,5Pin
△ CNP901	QCNCM049EAWZZ	J	AD	Plug,5Pin
CNPD01	QCNCWZP22AWZZ	J	AD	Socket,22Pin
CNPD02	QCNCWZP18AWZZ	J	AD	Socket,18Pin
CNPD03	QCNCWZP16AWZZ	J	AD	Socket,16Pin
CNPD04	92LCONE5P53253	J	AB	Plug,5Pin
CNPD1	QCNCWZ018AWZZ	J	AD	Socket,18Pin
CNPP01	92LCONE3P53253	J	AB	Plug,3Pin
CNPU02	QCNCWZP30AWZZ	J	AE	Socket,30Pin
CNPU03	92LCONEAP53253	J	AC	Plug,10Pin
CNPU04	QCNCWYW28AWZZ	J	AK	Socket,28Pin
CNPV97	QCNCM705CAFZZ	J	AA	Plug,3Pin
CNPV98	92LCONE4P53253	J	AB	Plug,4Pin
CNPV99	92LCONE-4P5267	J	AB	Plug,4Pin
CNS6	QCNWN1759AWZZ	J	AC	Connector Ass'y,2Pin
△ CORA01-03	RCORF0018AWZZ	J	AG	Core
CW1501	QCNWN1549AWZZ	J	AQ	Flat Cable,28Pin
CW1502A/B	QCNWN1515AWZZ	J	AK	Connector Ass'y,4/4Pin
CW1931	QCNWN1512AWZZ	J	AC	Flat Cable,5Pin
CW1932	QCNWN1513AWZZ	J	AC	Flat Cable,6Pin
△ F801,802	QFS-D502CAWNI	J	AC	Fuse,T5A L 250V

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
△ F803	QFS-D252CAWNI	J	AC	Fuse,T2.5A L 250V
△ F901	QFS-D202CAWNI	J	AC	Fuse,T2A L 250V
FE301	RTUNS0014AWZZ	J	AR	FM Front End
FLD01	VVKHNA13LS3-1	J	BB	FL Display
FWD01	QCNWN1769AWZZ	J	AG	Flat Cable,22Pin
FWD02	QCNWN1770AWZZ	J	AG	Flat Cable,16Pin
FWD03	QCNWN1771AWZZ	J	AF	Flat Cable,18Pin
FWM01	QCNWN1768AWZZ	J	AF	Flat Cabel,30Pin
JHP01	QJAKM0017AWZZ	J	AF	Jack,Headphones
JTU01	QSOCJ0221AWZZ	J	AD	Jack,AUX Input
M01(203-7)	RMOTV0039AWZZ	J	AM	CD Lid Motor
M97	RMOTV0035AWZZ	J	AY	Fan Motor
M901	RMOTV0038AWZZ	J	AT	MD Spindle Motor Ass'y
M902	92LMTR3167BASY	J	AP	MD Sled Motor Ass'y
M903	92LMTR3167AASY	J	AN	MD Loading Motor Ass'y
NM801	92LMTR1854BASY	J	AP	Motor with Gear [Sled]
NM802	92LMTR3515CASY	J	BA	Motor with Chassis [Spindle]
NSW801	QSW-F9001AW01	J	AD	Switch,Push Type [Pickup In]
△ RL800	RRLYD0011AWZZ	J	AE	Relay
△ RL900	RRLYD0004SJZZ	J	AG	Relay
△ RLV99	RRLYD0014AWZZ	J	AK	Relay
RMD01	VHLN64H380A-1	J	AK	Remote Sensor,N64H380A
SO301B	QTANC0405AWZZ	J	AD	Terminal,Antenna
△ SO900	QSOCA0212AWZZ	J	AD	Socket,AC Input
SOV99	QTANA0415AWZZ	J	AD	Terminal,Speaker
SW01	QSW-M0007AWZZ	J	AD	Switch,Push Type [CD Lid Close]
SW02	QSW-M0007AWZZ	J	AD	Switch,Push Type [CD Lid Open]
SW601	QSW-S0024AWZZ	J	AE	Switch,Slide Type [Span Selector]
△ SW900	QSOCE0009AWZZ	J		Switch,Rotary Type [Voltage Selector]
SW1930	QSW-P0011AWZZ	J	AD	Switch,Push Type [Write Pro]
SW1931	QSW-P0012AWZZ	J	AD	Switch,Push Type [Disc Media]
SW1932	QSW-M0007AWZZ	J	AD	Switch,Push Type [Loading]
SW1933	QSW-M0007AWZZ	J	AD	Switch,Push Type [Record]
SW1934	QSW-M0007AWZZ	J	AD	Switch,Push Type [Play]
SW1936	QSW-M0157AFZZ	J	AD	Switch,Push Type [Lead In]
SWD02	92LSWICHT1663T	J	AC	Switch,Key Type [On/Stand-by]
SWD03	92LSWICHT1663T	J	AC	Switch,Key Type [MD Eject]
SWD04	92LSWICHT1663T	J	AC	Switch,Key Type [Erase]
SWD07	92LSWICHT1663T	J	AC	Switch,Key Type [CD Eject]
SWD09	92LSWICHT1663T	J	AC	Switch,Key Type [Volume Up]
SWD10	92LSWICHT1663T	J	AC	Switch,Key Type [Volume Down]
SWD11	92LSWICHT1663T	J	AC	Switch,Key Type [Skip Up]
SWD12	92LSWICHT1663T	J	AC	Switch,Key Type [CD Play]
SWD13	92LSWICHT1663T	J	AC	Switch,Key Type [CD Stop]
SWD14	92LSWICHT1663T	J	AC	Switch,Key Type [Skip Down]
SWD15	92LSWICHT1663T	J	AC	Switch,Key Type [MD Play]
SWD16	92LSWICHT1663T	J	AC	Switch,Key Type [MD Stop]
SWD17	92LSWICHT1663T	J	AC	Switch,Key Type [Play Mode]
SWD18	92LSWICHT1663T	J	AC	Switch,Key Type [Record Mode]
SWD19	92LSWICHT1663T	J	AC	Switch,Key Type [MD Record]
SWD20	92LSWICHT1663T	J	AC	Switch,Key Type [AUX/Demo]
SWD21	92LSWICHT1663T	J	AC	Switch,Key Type [Tuner (Band)]
SWD22	92LSWICHT1663T	J	AC	Switch,Key Type [+10]

MD MECHANISM PARTS

2	LCHSM0089AWZZ	J	AH	Drive Chassis (A)
3	LCHSM0090AWZZ	J	AH	Drive Chassis (B)
4	LHLDX3009AWM1	J	AG	Cartridge Holder Ass'y
5	MLEVF0051AWM1	J	AG	Slider Lever Ass'y
7	MLEVF0046AWFW	J	AE	Arm,Holder
8	MLEVF0047AWFW	J	AC	Plate,Switch
9	MLEVF0054AWFW	J	AC	Arm,Head Up Shift
10	MLEVP0095AWZZ	J	AC	Lever,Cam Plate
12	MSPRD0132AWFJ	J	AB	Spring>Loading
14	MSPRP0030AWFJ	J	AB	Spring,Grip
15	MSPRP0031AWFJ	J	AC	Spring,Shaft
16	MSPRT0031AWFJ	J	AC	Spring>Loading Arm
17	MSPRT0032AWFJ	J	AB	Spring>Shift Arm
18	NGERH0085AWZZ	J	AC	Gear>Loading (A)
19	NGERH0086AWZZ	J	AB	Gear>Middle (A)
20	NGERH0087AWZZ	J	AB	Gear>Middle (B)
21	NGERH0088AWZZ	J	AC	Gear>Middle (C)
22	NGERH0089AWZZ	J	AC	Gear>Middle (D)
24	NGERR0004AWZZ	J	AC	Rack,Grip
27	NSFTD0006AWM1	J	AG	Drive Shaft Ass'y
28	NSFTM0019AWFW	J	AC	Shaft>Pickup Slide
30	PCOVS3029AWFW	J	AG	Cover>Shield,Top
31	PCOVS3033AWFW	J	AF	Cover>Shield,Side

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION	NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
32	PCOVS3031AWFW	J	AG	Cover,Shield,Bottom	203	DUNTZ3666AW01	J		CD Lid Gear Unit Ass'y
33	PCUSG0045AWZZ	J	AC	Cushion,Shield Cover	203- 1	LHLDZ1342AWZZ	J		Gear Box,A
34	RCILH0113AFZZ	J	AS	Magnetic Head	203- 2	LHLDZ1343AWZZ	J	AE	Gear Box,B
△ 35	RCTRH8198AFZZ	J	BM	MD Pickup Unit Ass'y	203- 3	NGERH0132AWZZ	J	AD	Gear A,Drive
36	MSPRT0034AWFJ	J	AB	Spring,Ground	203- 4	NGERH0133AWZZ	J	AD	Gear B,Drive
501	LX-BZ0040AWZZ	J	AB	Screw,ø1.4×1.5mm	203- 5	NGERH0151AWZZ	J	AG	Gear C,Drive
502	LX-BZ0046AWZZ	J	AB	Screw,ø2×2mm	203- 6	NGERH0150AWZZ	J	AC	Gear,Motor
503	LX-BZ0800AFZZ	J	AA	Screw,ø1.4×2.5mm	203- 7(M01)	RMOTV0043AWZZ	J	AN	CD Lid Motor
504	LX-BZ0883AFZZ	J	AB	Screw,ø1.7×5mm	203- 8	PFLT-0052AWZZ	J	AB	Felt A
505	LX-JZ0020AWZZ	J	AB	Screw,ø1.4×3mm	204	GITAR0664AWSA	J		Rear Panel [BL]
506	LX-JZ0022AWZZ	J	AB	Screw,ø1.7×6mm	204	GITAR0725AWSA	J		Rear Panel [GR]
507	LX-JZ0024AWZZ	J	AB	Screw,ø1.4×4.5mm	205	GCABB1219AWSA	J	AW	Rear Cabinet
509	XBPSD20P03K00	J	AB	Screw,ø2×3mm	206	LANGK0244AWFW	J	AE	Bracket,CD Mechanism,A
510	XSPSN17P03K00	J	AB	Screw,ø1.7×3mm	207	LANGK0245AWFW	J	AD	Bracket,CD Mechanism,B
511	XWSSD14-05000	J	AA	Washer,ø1.4×0.5mm	208	LANGK0246AWFW	J	AF	Bracket,CD Mechanism,C
512	LX-BZ0846AFZZ	J	AB	Screw,ø1.7×3mm	209	LANGK0247AWFW	J	AE	Bracket,CD Mechanism,D
513	LX-JZ0025AWZZ	J	AB	Screw,ø1.4×5mm	210	LANGK0259AWFW	J	AE	Bracket,Motor Fan,C
M901	RMOTV0038AWZZ	J	AT	MD Spindle Motor Ass'y	211	LANGT0088AWFW	J	AE	Bracket,Sub Trans PWB
M902	92LMTR3167BASY	J	AP	MD Sled Motor Ass'y	212	LANGT0089AWFW	J	AG	Bracket,AMP, Bottom
M903	92LMTR3167AASY	J	AN	MD Loading Motor Ass'y	213	LANGT0090AWFW	J	AG	Bracket,Motor Fan,A
SW1930	QSW-P0011AWZZ	J	AD	Switch,Push Type [Write Pro]	214	PSHEP0062AWZZ	J	AF	Cover,Sub Transformer
SW1931	QSW-P0012AWZZ	J	AD	Switch,Push Type [Disc Media]	215	LANGT0107AWFW	J	AD	Bracket,Motor Fan,B
SW1932	QSW-M0007AWZZ	J	AD	Switch,Push Type [Loading]	216	LCHSM0131AWFW	J		Main Chassis
SW1933	QSW-M0007AWZZ	J	AD	Switch,Push Type [Record]	217	LHLDZ1293AWSA	J	AC	Holder,Decoration Plate,A
SW1934	QSW-M0007AWZZ	J	AD	Switch,Push Type [Play]	218	LHLDZ1294AWSA	J	AC	Decoration Plate,B
SW1936	QSW-M0157AFZZ	J	AD	Switch,Push Type [Lead In]	219	LHLDZ1295AWSA	J	AD	Holder,LED
CD MECHANISM PARTS					220	LHLDZ1297AWSA	J	AE	Holder,FL Display
301	NGERH0011AWZZ	J	AC	Gear,Middle	221	LHLDZ1355AWSA	J	AE	Holder,MD,Left
302	NGERH0012AWZZ	J	AC	Gear,Drive	222	LHLDZ1300AWSA	J	AD	Holder,MD,Right
303	MLEVP0010AWZZ	J	AC	Rail,Guide	223	PCOVP1001AWSA	J	AE	Cover,CD Mechanism
304	NSFTM0020AWFW	J	AD	Shaft,Guide	224	PCOVZ1017AW00	J	AF	Cover,Light
△ 306	92LHPC1LXASY	J	BD	Pickup Unit Ass'y	225	PCUSG0008AWZZ	J	AB	Cushion,Mechanism
306- 1	—	—	—	Pickup Unit (Not Replacement Item)	226	PCUSG0022AWZZ	J	AB	Cushion,Leg
306- 2	NGERR0043AFZZ	J	AC	Gear,Rack	227	PRDAR0178AWFW	J	AN	Heat Sink,Power PWB
306- 3	MSPRC0961AFZZ	J	AA	Spring,Rack	228	PSHEP0067AWZZ	J		Cover,Power PWB
701	XBSSD26P06000	J	AA	Screw,ø2.6×6mm	229	PSHEP0055AWZZ	J	AD	Sheet,Flat Cable
702	XHBSD20P05000	J	AA	Screw,ø2×5mm	230	PSPAS0003AWZZ	J	AC	Spacer,Boss
703	XBBS20P03000	J	AA	Screw,ø2×3mm	231	PSPAZ0036AWZZ	J	AC	Spacer,CD Boss
704	LX-WZ1070AFZZ	J	AA	Washer,ø1.5×ø3.8×0.25mm	△ 232	QFSDH0001AWZZ	J	AB	Holder,Fuse
NM801	92LMTR1854BASY	J	AP	Motor with Gear [Sled]	233	QLUGP0001AWZZ	J	AC	Lug Terminal
NM802	92LMTR3515CASY	J	BA	Motor with Chassis [Spindle]	234	92LMCUSN1524A	J	AD	Cushion,CD Mechanism
NSW801	QSW-F9001AW01	J	AD	Switch,Push Type [Pickup In]	235	92LNBAND1318A	J	AA	Nylon Band,80mm
CABINET PARTS					236	PCUSS0050AWZZ	J	AB	Cushion,CD
201	92LCAB3672AASY	J		Front Panel Ass'y [BL]	237	TCAUS0028AWZZ	J	AB	Label,Laser Class 3B
201	92LCAB3673AASY	J		Front Panel Ass'y [GR]	238	HDECQ0654AWSA	J	AK	Decoration Plate,A
201- 1	HPNLC1285AWSA	J	AV	Front Panel	239	PSHEP0057AWZZ	J	AF	Sheet,FL Display Cover
201- 2	HDECQ0651AWSA	J	AQ	Decoration Plate [BL]	240	JKNBZ0760AWSA	J	AF	Button,CD Eject
201- 2	HDECQ0651AWSB	J	AQ	Decoration Plate [GR]	241	PSLDM3079AWFE	J	AQ	Shield Case A,AMP.
201- 3	HDECQ0726AWSA	J	AL	Decoration Plate,FL Display [BL]	242	PSLDM3080AWFW	J	AK	Shield Case B,AMP.
201- 3	HDECQ0726AWSB	J	AL	Decoration Plate,FL Display [GR]	243	PRDAR0186AWFW	J	AH	Heat Sink B,AMP.
201- 4	JKNBZ0761AWSA	J	AN	Button,Operation	244	LHLDZ1325AWZZ	J	AC	Holder,Edge
201- 5	JKNBZ0759AWSA	J	AF	Button,On/Stand-by	245	PRDAR0185AWFW	J	AK	Heat Sink A,AMP.
201- 7	GDORF0064AWSH	J	AF	MD Door	246	PSLDM3081AWZZ	J	AH	Shield A,AMP.
201- 8	LANGT0086AWFW	J	AC	Bracket,MD Door Spring	247	PSHEP0052AWZZ	J	AD	Insulation Sheet A,AMP.
201- 9	MSPRT0022AWZZ	J	AB	Spring,MD Door	248	PSHEP0053AWZZ	J	AD	Insulation Sheet B,AMP.
201-10	PCUSG0060AWZZ	J	AB	Cushion,Operation Button Lid	249	PCUSG0077AWZZ	J	AH	Sheet,AMP.Shield Case B
201-11	PCUSG0061AWZZ	J	AB	Cushion,CD Lid	250	QCWNW1944AWZZ	J		Lead Wire with Lug
201-12	PSHEZ0111AWZZ	J	AF	Sheet,Operation Lid	251	TSPC-0866AWZZ	J		Label,Specifications [BL] [Thailand Only]
201-13	PCUSG0071AWZZ	J	AA	Cushion,Magnet	251	TSPC-0867AWZZ	J		Label,Specifications [GR] [Thailand Only]
201-14	LANGK0248AWFW	J	AD	Bracket,Open/Close Switch PWB	251	TSPC-0925AWZZ	J		Label,Specifications [BL] [Taiwan Only]
201-16	PSHET0058AWZZ	J	AB	Sheet,Magnet	251	TSPC-0926AWZZ	J		Label,Specifications [GR] [Taiwan Only]
201-17	HDECQ0725AWSA	J	AT	Decoration Plate,CD Lid [BL]	252	TLABS0315AWZZ	J		Label,Rated [Hong Kong Only]
201-17	HDECQ0725AWSB	J	AT	Decoration Plate,CD Lid [GR]	253	92LLABL1204C	J	AA	Label,Made in Malaysia
201-18	LHLDZ1292AWSA	J	AK	Holder,CD Lid	254	PSHEP0068AWZZ	J		Sheet,LED Holder
201-19	GDORF0094AWSA	J	AN	CD Lid	255	92LPANEL713A	J	AB	Panel,Made in Malaysia [Kuwait Only]
201-20	LANGF0051AWF2	J	AN	Bracket,CD Lid	601	LX-BZ0057AWFN	J	AB	Screw,Special
201-21	HDECA0010AWSA	J	AL	Decoration Plate,Operation Lid	602	LX-EZ0005AWFD	J	AA	Screw,ø2.6×10mm
201-22	GDORF0095AWSA	J	AM	Operation Lid	603	LX-EZ0029AWFN	J	AB	Screw,Special
201-23	LANGK0243AWFN	J	AC	Bracket,Operation Lid Magnet	604	LX-HZ0082AFZZ	J	AA	Screw,ø4×8mm
201-24	PMAGZ0002AWZZ	J	AD	Magnet,Operation Button Lid	605	LX-JZ0010AFFD	J	AA	Screw,ø3×10mm
201-25	PSHEP0056AWZZ	J	AB	Sheet,Magnet Bracket	606	XBBS20P05000	J	AA	Screw,ø2×5mm
					607	XEBS20P10000	J	AA	Screw,ø2×10mm
					608	XBPSD30P06K50	J	AA	Screw,ø3×6mm
					609	XEBS20P08000	J	AA	Screw,ø3×8mm
					610	XEBS20P10000	J	AA	Screw,ø3×10mm
					611	XEBS20P12000	J	AA	Screw,ø3×12mm
					612	XHBSD20P05000	J	AA	Screw,ø2×5mm

SD-CX1W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
613	XHSSD30P06000	J	AA	Screw,ø3×6mm
614	XJBSD30P06000	J	AA	Screw,ø3×6mm
615	XHBSD30P20000	J	AA	Screw,ø3×20mm
616	XHBSD30P06000	J	AA	Screw,ø3×6mm
617	XJBSD30P08000	J	AA	Screw,ø3×8mm
618	XJBSD30P14000	J	AA	Screw,ø3×14mm
619	XJBSD30P25000	J	AB	Screw,ø3×25mm
620	XJBSF30P08000	J	AA	Screw,ø3×8mm
621	XJBSN30P08000	J	AA	Screw,ø3×8mm
622	XWHSN32-10130	J	AA	Washer,ø3.2×ø13×1.0mm
623	XWSSN32-07000	J	AB	Washer,ø3.2mm
624	LX-WZ7003AWZZ	J	AB	Washer,ø3.2×ø6×0.5mm
625	LX-WZ7004AWZZ	J	AB	Washer,ø3.2×ø6×0.3mm

ACCESSORIES/PACKING PARTS

△	QACCA0004AW00	J	AK	AC Power Supply Cord
△	QACCB0008AW00	J	AW	AC Power Supply Cord
△	QACCE0007AW00	J	AH	AC Power Supply Cord
△	QACCCJ0006AW00	J	AK	AC Power Supply Card
△	QACCL0002AW00	J	AN	AC Power Supply Cord
△	QANTL0012AWZZ	J	AS	AM Loop Antenna
△	QPLGA0004AWZZ	J	AF	Adaptor,AC Plug
	RRMCG0257AWSA	J	AY	Remote Control
	SPAKA0274AWZZ	J	AG	Packing Add.,Left
	SPAKA0275AWZZ	J	AG	Packing Add.,Right
	SPAKC1178AWZZ	J		Packing Case [BL]
	SPAKC1180AWZZ	J		Packing Case [GR]
	SPAKZ0686AWZZ	J	AD	Packing Add.,Front
	SPAKZ0693AWZZ	J	AE	Packing Add.,Center
	SPAKZ0752AWZZ	J	AC	Protection Sheet
	SPAKZ0760AWZZ	J	AH	Pad,Accessories
	SSAKA0007AWZZ	J	AB	Polyethylene Bag,Accessories
	SSAKH0045AWZZ	J	AD	Polyethylene Bag,Unit
	TCAUA0063AWZZ	J		Sheet,Packing Case [Taiwan Only]
	TCAUZ0093AWZZ	J		Sheet,Fan Caution
	TGANE0011AW65	J		Guarantee Card [BL] [For Philippines]
	TGANE0011AW66	J		Guarantee Card [GR] [For Philippines]
	TGANZ0028AW77	J		Guarantee Card [BL] [For Taiwan]
	TGANZ0028AW78	J		Guarantee Card [GR] [For Taiwan]
	TINSZ0678AWZZ	J	AR	Operation Manual
	TLABE0537AWZZ	J		Label,Bar Code [BL]
	TLABE0538AWZZ	J		Label,Bar Code [GR]
	TLABG0002AWZZ	J	AB	Label,Hong Kong
	TLABN0112AWZZ	J	AA	Label,Serial Number [Except for Thailand/Taiwan]
	TLABZ0948AWZZ	J		Label,Packing Case [BL] [Taiwan Only]
	TLABZ0949AWZZ	J		Label,Packing Case [GR] [Taiwan Only]
	92LBAG1770A	J	AB	Polyethylene Bag, AC Power Supply Cord
	92LFANT1533A	J	AD	FM Antenna
	92LFB1616	J	AL	Non-slip Sheet for Speaker×8
	92LG-CARD1266E	J	AB	Guarantee Card [For Australia/New Zealand]
	92LLABL1507B	J	AA	Label,Made in Malaysia, Packing Case

P.W.B. ASSEMBLY (Not Replacement Item)

PWB-A1~4	92LPWB3672MANS	J	—	Main/Tuner/CD/Switch (Combined Ass'y)
△ PWB-B1~8	92LPWB3672DPLS	J	—	Display/Power/Main Trans/ Sub Trans/CD Eject/ Headphones/LED/Spacer (Combined Ass'y)
PWB-C	92LPWB3666AMPS	J	—	1 Bit Amp.
PWB-D	QPWBF0027AWZZ	J	AD	CD Motor (PWB Only)
PWB-E	92LPWB3515MDS	J	—	MD Main
PWB-F1,2	QPWBF0554AWZZ	J	AD	MD Mechanism Switch/ MD Loading Motor (PWB Only)

OTHER SERVICE PARTS

QCNWK0108AFZZ	J	AL	Extension Flat Cable (28Pin)
QCNWK0109AFZZ	J	AH	Extension Flat Cable (5Pin)
QCNWK0129AFZZ	J	AG	Extension Connector (2Pin)
QCNWK0130AFZZ	J	AP	Extension Flat Cable (6Pin)
RRCDT0101AFZZ	J	CB	Test Disc,High Reflection
RRCDT0103AFZZ	J	BK	Head Adjusting Transparent Disc
RUNTK0532AFZZ	J	BK	Extension PWB for Service
UDSKA0004AFZZ	J	AZ	CD Pickup Lens Cleaner Disc
88GMMD-213AS	J	BT	Low Reflection Disc, Pre-Adjustment Mini Disc (TEAC Test MD)
88GMMD-318	J	BF	Low Reflection Disc, Pre-Adjustment Mini Disc (TEAC Test MD)

CP-CX1W

SPEAKER BOX PARTS

901	92LDLAS1683	J	AZ	Net Frame Ass'y [GR]
901	92LDLAS1683A	J	AZ	Net Frame Ass'y [BL]
902	92LBA703	J	AZ	Front Panel
903	92LDL1693A	J	AD	Speaker Duct
904	92LBX665	J	BD	Rear Cabinet
905	92LWS2944	J	AC	Net Catcher
906	92LWS2951	J	AD	Cushion,Rear Cabinet
907	92LWS2952	J	AC	Cushion,Front Panel
908	92LWS2953	J	AC	Tape,Tweeter Ring
909	92LWS2958A	J	AD	Cushion,Tweeter
910	92LWS2558A-U	J	AC	Cushion,Woofer
911	92LDL1684	J	AM	Ring,Tweeter
912	92LTP660A	J	AG	Speaker Terminal
913	92LNTAS283	J	AV	Network Ass'y
914	92LNP-Y220WBL	J		Label,Specifications [BL]
914	92LNP-Y220WGR	J		Label,Specifications [GR]
915	92LLC1107	J	AH	Bracket,Speaker
916	92LAS510	J	AL	Absorber
917	92LSRTD4B16FBC	J	AB	Screw,ø4×16mm
918	92LSRTD3B12FBC	J	AB	Screw,ø3×12mm
919	92LSRTD3W12F	J	AB	Screw,ø3×12mm
920	92LSRTD4B16FNI	J		Screw,ø4×16mm
921	92LSRTD4B12F	J	AB	Screw,ø4×12mm
SP1,2	92LW1259B0N	J	BB	Woofer
SP3,4	92LW2122A1	J		Tweeter

ACCESSORY/PACKING PARTS

92LFB1590	J	AR	Speaker Cord Ass'y
92LPCE02221APA	J	AH	Packing Add.,Top,Speaker
92LPCE02221APB	J	AH	Packing Add.,Bottom,Speaker
92LTB693	J	AE	Polyethylene Bag,Speaker

SD-CX1W

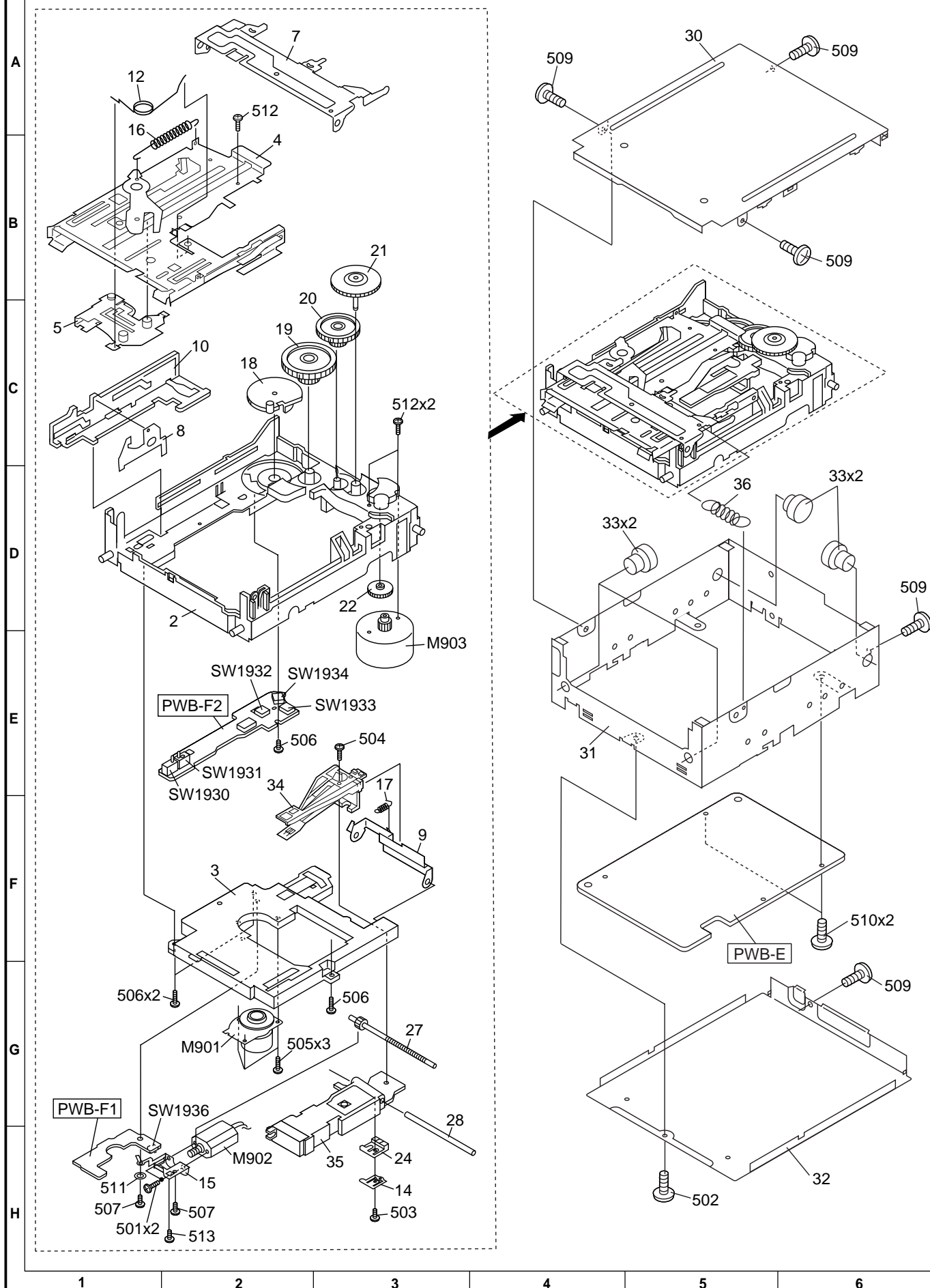


Figure 10 MD MECHANISM EXPLODED VIEW

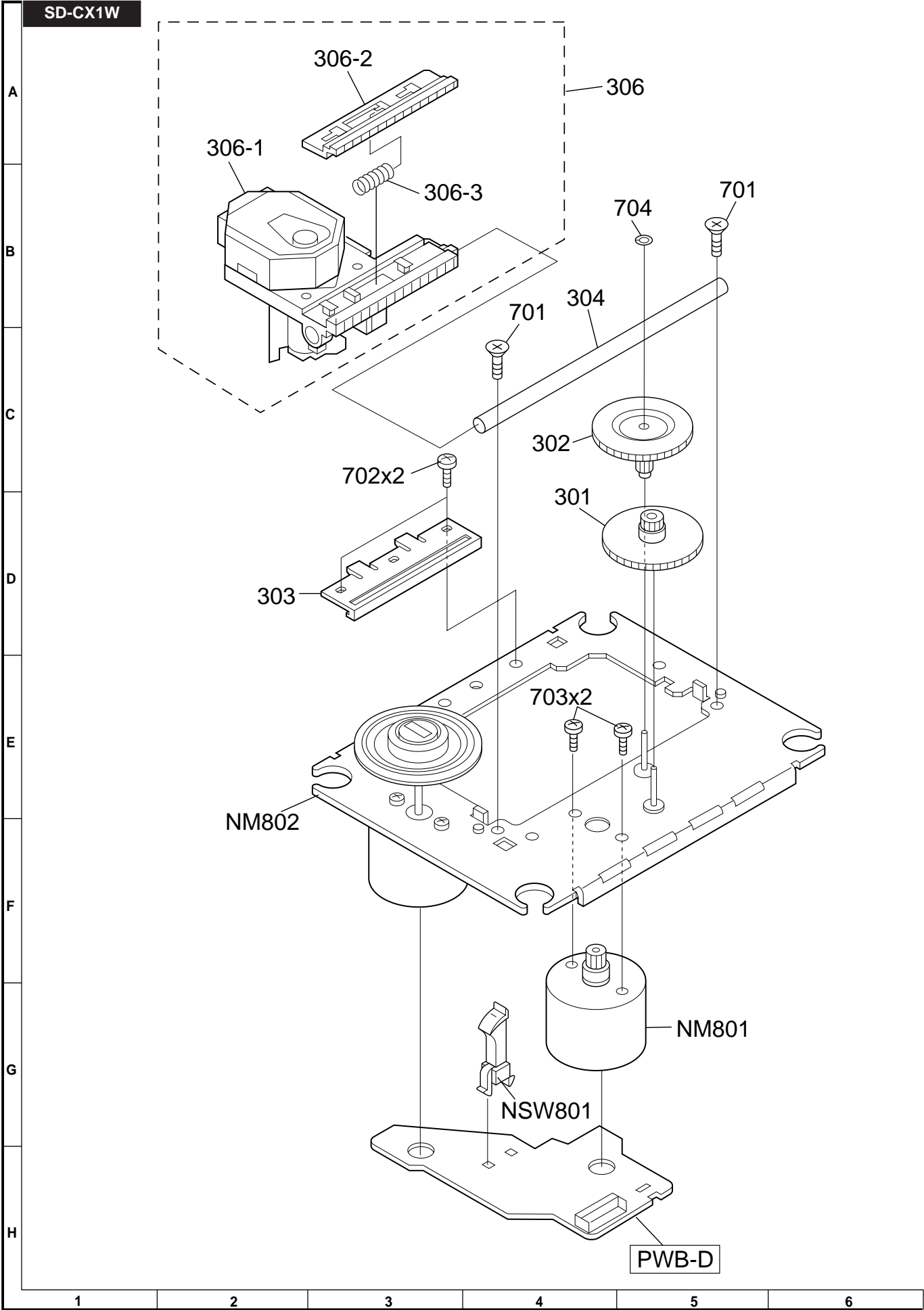


Figure 11 CD MECHANISM EXPLODED VIEW



SD-CX1W



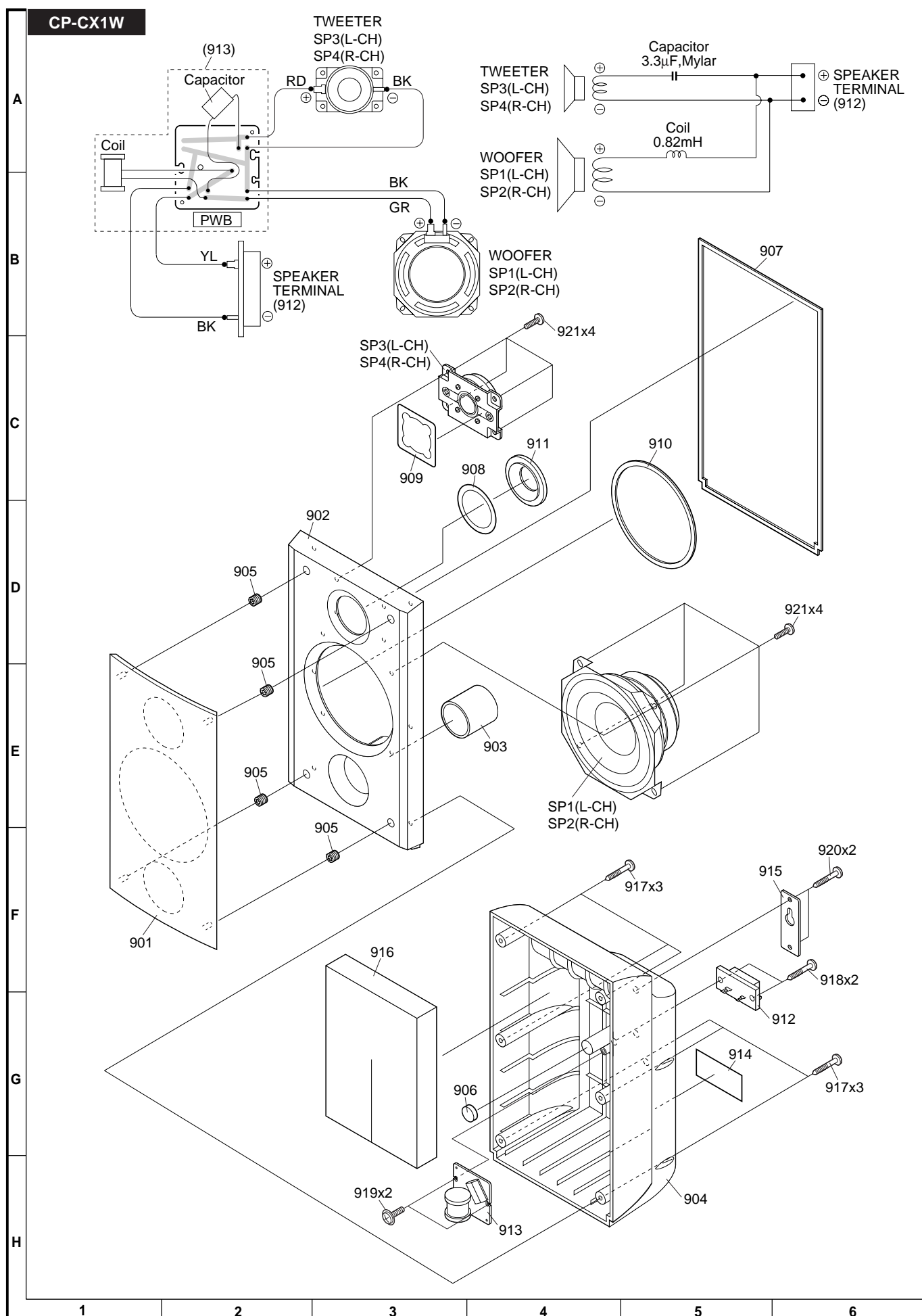


Figure 14 SPEAKER EXPLODED VIEW

SD-CX1W

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— M E M O —



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